Operating manual **English**

UFS 903 si/sw

HDTV Satellite Receiver

KATHREIN
Antennen · Electronic

Preface

Dear customer,

this operating manual is intended to help you make the fullest use of the extensive range of functions offered by your new satellite receiver.

We have tried to make the operating instructions as easy as possible to understand, and to keep them as concise as possible. To help you understand particular specialist terms that cannot be translated, we have added a short glossary at the end of the manual.

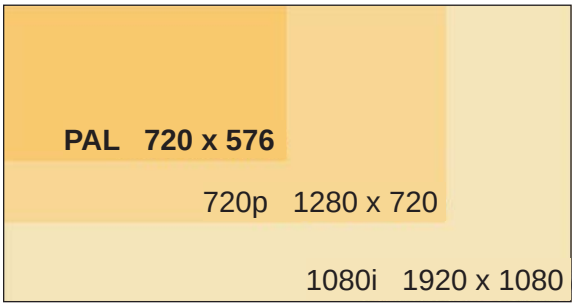
The power switch is an environmentally friendly feature. If you will not be using your receiver for an extended period, you should use the power switch to disconnect it from the power supply and save energy. For shorter breaks, you can use the remote control to switch the receiver to standby, which uses only a minimal amount of energy.

We want you a good reception and hope you will enjoy using your new HDTV receiver.

Your
KATHREIN team

Difference between PAL and HDTV

The difference between PAL and HDTV
High-resolution TV is characterised by a significantly higher number of picture lines on the TV set. The usual European standard PAL achieves a resolution of 576 lines vertically and 720 lines horizontally. The high-resolution TV provides an impressive resolution, up to five times higher than the usual PAL standard TV, and hence delivering more detail sharpness and responsiveness.



A HDTV picture can contain up to five times as many picture points, that is, approximately 2 million pixels compared to a conventional PAL picture with only approximately 400,000 pixels.
Worldwide there are currently two HDTV standards, based on the two formats 1080i and 720p. The two standards differ in the number of picture lines and in the transmission procedure. For the human eye, the difference between the two HDTV standards is hardly perceptible, however; in comparison to the PAL system, moving pictures look much more dynamic. Transmission technology and reception equipment will be able to handle both standards in the future.

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Safety instructions - Important Information

These two pages contain important information about operation, installation location and connection of the unit. Read these instructions carefully before setting up the unit.

Danger!

Mains cable

Make sure that the mains cable (power supply cable) is not damaged. Units with a damaged mains cable must be disconnected from the mains (unplug it at the socket) and repaired by an electrical specialist before setup. Only use the power pack supplied (if available)!

Risk of fatal injury due to electric shock!

Cleaning

Disconnect the mains plug before cleaning the unit. Only use a dry cloth for cleaning and only clean the outer surface. Never open the casing of the unit.

Touching the parts inside the unit carries a risk of death due to electric shock!

Playing children

Make sure that children do not push any objects into the ventilation slots.

Risk of fatal injury due to electric shock!

Warning!

Earthing

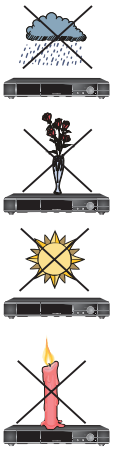
The antenna system must be earthed as specified or equipotentially bonded.
EN 60728/11 and any national regulations must be complied with.

Risk of voltage surges due to lightning strikes!

Power supply voltage

Only operate the unit at the specified mains voltage (indicated on the rear of the unit or on the external power pack). The unit may only be connected to the mains and turned on once it has been connected to the antenna and to the TV set or the cable network and PC.

If the mains voltage is too high, there is a risk of fire!



Moisture, direct sunlight, heat, naked flames

Protect the unit against moisture, dripping and splashed water (do not place any filled objects such as vases on top of the unit). Do not place the unit close to a heater or expose it to direct sunlight and do not operate it in damp locations. Only use the unit in a moderate climate, not in tropical conditions! Place no naked flames such as candles on top of the unit!

There is a risk of fire!

Batteries

If your unit was supplied with batteries (e.g. for the remote control), take care that the batteries are not exposed to excessively high temperatures, direct sunshine or fire. Exchange the batteries only with types that are identical or equivalent. Otherwise the batteries and also the remote control may be damaged. Comply also with the safety instructions stated on the batteries:

There is a risk of explosions!

Warning!

Warning!

Ventilation

The heat generated in this unit is adequately dissipated. However, the unit should never be installed in a cupboard or on shelves with inadequate ventilation. Never cover the cooling slots on the unit (e.g. with other equipment, magazines, tablecloths, clothing or curtains)!

Do not cover

→

Do not place any objects on top of the unit. Unless stated to the contrary in the “Connection and Set-Up” and “Installation” sections in the manual supplied, maintain a clearance of at least 10 cm above the unit, 2 cm to either side and 5 cm behind the unit, to allow unobstructed dissipation of the heat generated.

There is a risk of fire!

Important!

Repairs

Ensure that any repairs to your unit are carried out by qualified personnel. Opening the unit and attempting to repair it yourself voids all warranty claims!
Improper work on the unit may jeopardise the electrical safety of the unit.

The manufacturer accepts no liability for accidents caused by the user opening the casing of the unit!

Connections

Incorrect wiring of the connections can lead to malfunctions or defects on the unit!

Periods of extended absence, thunderstorms, mains socket accessibility

In order to disconnect the unit from the mains completely, the mains plug must be unplugged from the wall socket! Therefore install the unit close to a mains socket and make sure that socket is accessible at all times, so that you can disconnect the unit from the mains if necessary.
If you are away for an extended period, and during thunderstorms, always switch the unit off at the mains and unplug it from the socket. This also applies to the other equipment connected to the unit. Isolation from the cable network is also recommended. Note any timer programs (receiver) and turn the unit on again promptly before the recording time.

Installation location

All electronic equipment generates heat, However, the heating of this unit lies within the permissible range. Sensitive furniture surfaces and veneers may become discoloured by the effects of constant heat over time. The feet of the unit can also cause colour changes to treated furniture surfaces. If necessary, place the unit on a suitable stable and flat base!

Electronic equipment is not domestic waste - it must be disposed of properly in accordance with directive 2002/96/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL dated 27th January 2003 concerning used electrical and electronic appliances.
At the end of its service life, take this unit for disposal to an appropriate official collection point.

Spent batteries are special waste!
Do not throw spent batteries into your domestic waste; take them to a collection point for spent batteries!

Important Information

Channel assignment

The channels available on the satellites and transponders are subject to continual change. In such cases, it is necessary to reset the channels as the factory preset programming corresponds to the situation at the date of manufacture. The information for these settings can be found on the Internet or in relevant magazines.

Updating the receiver software

Your receiver was equipped in the factory with the latest software version at that time. We are, however, constantly working on adapting the software to the wishes of our customers and to developments in technology. Further information on this can be found in the chapters “Main Menu - Service Menu”, “Software Update”.

Product return/original packaging

Please keep the original packaging in case you need to return the product at any time. Receivers are liable to damage by impacts; they are adequately protected only when in their original packaging. If the receiver is not shipped correctly the guarantee/warranty on it will be voided.

Ventilation slots on the unit

Make sure that the ventilation slots on the unit are not covered in any way. Otherwise the unit may overheat.

There is a risk of fire!

Switching the receiver off

Before you switch the receiver using the power switch, you must switch the remote control into stand-by mode by pressing the stand-by button (on/off). In standby mode, any changed or new data that is broadcast will be saved by the receiver. Once the receiver is in standby mode it can be fully switched off at any time at the power switch on the front of the unit.

Do not switch the receiver off at the power switch directly from operating mode! This can lead to a loss of data and corruption of the software.

Important Information

Information on Audio MPEG Inc. and S.I.SV.EL, S.P.A:

This unit makes use of legally protected technologies, which are protected by patents in the USA and also by other intellectual property rights in other countries.
KATHREIN-Werke KG has obtained licences from Audio MPEG Inc. and Societa‘ Italiana per lo sviluppo dell‘elettronica, S.I.SV.EL, S.P.A to use these technologies. These licences carry certain restrictions, which apply also to you as the customer. Accordingly this unit may only be used by the end customer for private non-commercial purposes and for the licensed content. It may not be used for commercial purposes. The use of products or processes that are sold or used with this unit is not included in this statement. The use of reverse engineering is not permitted in respect of the licensed technologies, nor is disassembly.

Miscellaneous

The information in this operating manual was correct at the time of going to print. We reserve the right however to make changes at any time and without prior notice. If new software is released for your receiver, and this affects the information in the operating manual (e.g. changes to the menus and/or functions), if we believe it necessary we will make available a new operating manual for download under “www.kathrein.de”.

Included in the software for this receiver is software that is licensed under the GNU (General Public Licence). The source code of the program is obtainable under: http://www.kathrein.de/linux/receiver/ufs903

Make a note of the receiver's basic settings (these are set during the first installation), so you can restore them if necessary!

The term DiSEqC™ used in this operating manual is a registered trade mark of the European Telecommunication Satellite Organisation (EUTELSAT).

DOLBY DIGITAL

Manufactured under licence from Dolby Laboratories. “Dolby” and the double-D symbol are registered trademarks of Dolby Laboratories.

HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE

HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

Receiver features/scope of supply

Receiver features

The UFS 903 HDTV receiver is suitable for the reception of digital satellite TV and radio channels. The receiver can be used to receive both high resolution and also conventional TV.
The built-in Common Interface offers capacity for one CA module for pay TV channels. The receiver indicates the channel name on the 12-character alphanumeric display.

The HDMI interface is ideal for connecting the receiver to a flat-screen TV set. Via the optical and electrical audio output, the receiver can output the Dolby Digital data stream AC 3 to a Dolby Digital system.

The integrated Kathrein Convenience EPG is not only a clearly laid out electronic TV guide, but also enables programmes to be copied directly from the related EPG view to the timer.

The receiver is very easily serviced, due to its capability for automatic downloading of new software and new programme lists. The USB interface at the rear of the unit allows software updates to be loaded to the receiver and external storage media (USB stick/hard disk) to be connected for recording TV and radio broadcasts.

The receiver is available in a silver or black casing.

Scope of supply

- UFS 903si or UFS 903sw
- Remote control RC 671
- HDMI cable
- 2 batteries AAA 1.5 V
- Power supply cable
- Operating Manual
- Safety instructions (multi-lingual)

Features

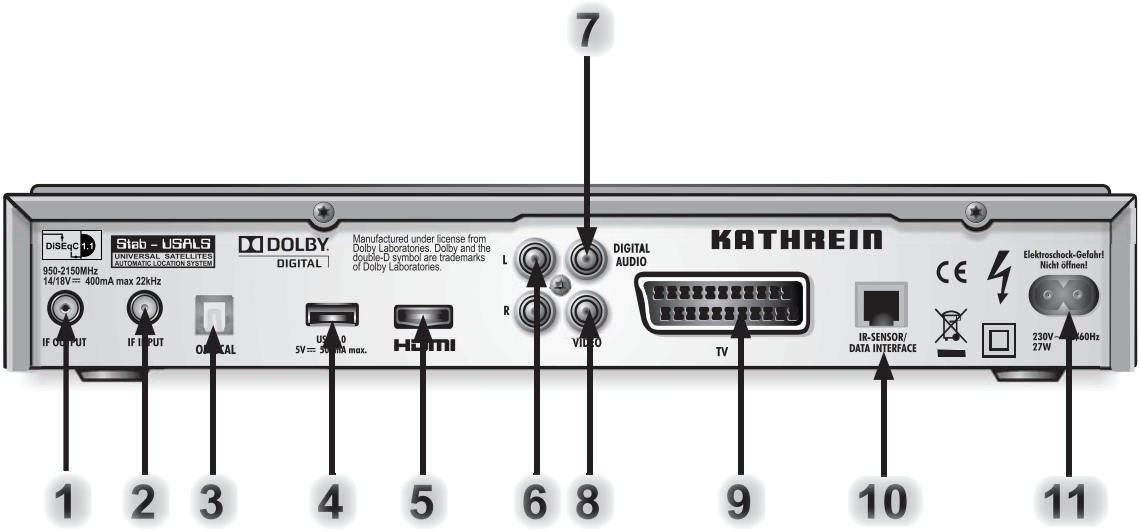
Features

- Reception of digital satellite TV and radio channels in the DVB-S2 (HDTV) and DVB-S transmission standards
- Video decoding of MPEG-2 and MPEG-4/H.264 signals (HDTV)
- 12-character alphanumerical display shows channel names (TV and radio)
- Kathrein Convenience EPG with intuitive timer programming [1)]
- Common Interface for one CA module [2)]
- HDMI output for best picture quality on your flat-screen TV set
- Up-scaler for upscaling the PAL signal (576i) to 576p, 720p and 1080i
- Facility for recording TV and radio broadcasts to an external USB hard disk
- Guided first installation
- Pre-programmed channel list - view TV immediately without channel search
- Automatic software and programme lists download
- Optical and electrical audio output for Dolby [4)] Digital data stream (AC 3)
- Cinch sockets for AV signals (composite CVBS, stereo audio)
- One USB 2.0 port at the rear of the unit for software updates with a USB stick
- 8 pre-programmed favourite channel lists for TV and 8 for radio
- 1,000 timers (series and interval timers)
- Software updates via satellite and from a USB stick (both the operational software and the programme lists can be updated)
- Videotext decoder with 800 page memory capacity and Videotext generation (only via Scart)
- Language selection for multilingual broadcasts
- On-screen display (OSD) in 8 languages (D, GB, F, I, E, CZ, PL, TR)
- DiSEqC™1.0/-1.1/-1.2, USALS and SCR single cable system control signals
- Memory for 4,000 channels
- Infrared remote control with command set switching
- Connection for external IR sensor (available as accessory)
- Stand-by: < 0.4 W
- Power switch on the front of the unit [3)]
- Items supplied:

  Infrared remote control, batteries, HDMI cable, operating manual, safety instructions, power supply cable

1) Only displayed if this information is broadcast by the channel provider
2) CA modules and Smartcards are not included with this product
3) The unit is not completely disconnected from the mains (see the sections “Periods of extended absence, thunderstorms, mains socket accessibility”)
4) Dolby is a registered trademark of Dolby Laboratories

View of rear panel



1. LNB loop-through output
2. LNB input
3. Optical data stream output (SPDIF/Sony Philips Digital Interface Format) for Dolby Digital AC 3 audio
4. 1 x USB 2.0 port (USB-A connectors)
5. HDMI connection
6. Audio outputs (L/R) - cinch sockets
7. Electrical data stream output (SPDIF/Sony Philips Digital Interface Format) for Dolby Digital AC 3 audio
8. Video output (composite colour)
9. Scart socket for TV connection
10. Data interface (for service/optional IR sensor)
11. Mains power cable

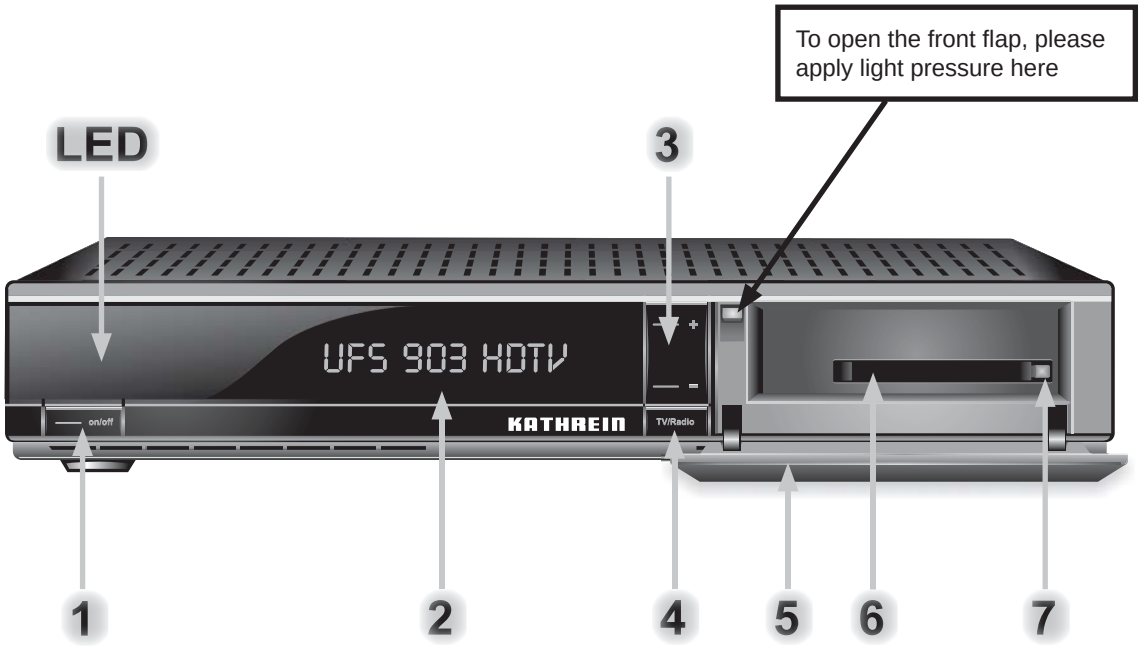
The UFS 903 device label is located on the bottom side of the unit.

The label features the following information:

- **type description (e.g. UFS 903sw)**
- **order no. and**
- **serial number of the unit.**

You do not require this information to operate the unit. However, in the event of a warrranty claim, you can find the necessary information on this label in case you no longer have the receiver packaging.

View of front panel (flap folded down)



1. On/Off switch [1)]
2. 12 character alphanumeric display
3. Channel selection buttons
4. TV/R button (switching between TV and radio mode)
5. Front flap swung down
6. Common Interface for one CA module for Pay-TV cards [2)]
7. Ejection button for CA module

[1)] The unit is not completely disconnected from the power supply (see chapter „Safety Instructions - Important notes“, „Periods of extended absence, thunderstoms, mains socket accessibility“)
[2)] CA modules and Smartcards are not included with this product

LED in the front panel display:

The LED lights up:

red	Receiver is in stand-by mode	
green	Stand-by mode:	A recording is about to start in the next five minutes
	in operation:	the USB storage medium is connected and ready for use

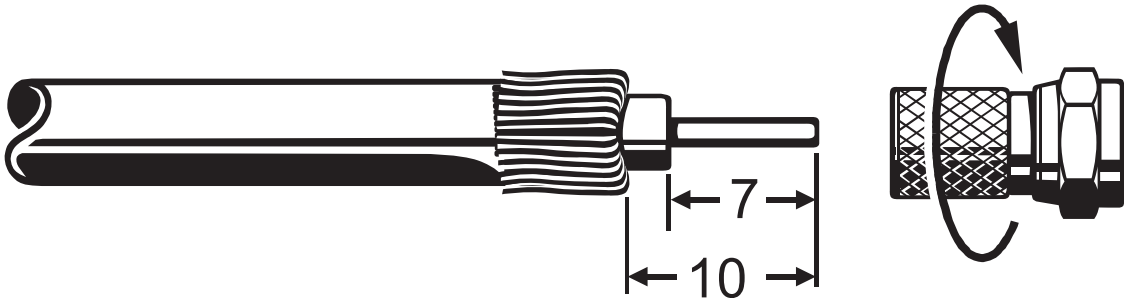
Connection and setup

Connecting the receiver

Sat IF connection

Connect the Sat IF input on the receiver to the satellite reception system. Use a coaxial cable with a standard F connector.

If the F standard connectors have not yet been fitted on the cables, strip the insulation from the cables as shown in the following illustration and carefully screw the F standard connectors on to the ends of the cables to form a secure attachment.



When fitting the connector, make sure that no strands of the braid are touching the inner conductor, otherwise a short circuit will occur.

The quality of the reception signal depends on a good connection at this point!

Reception requirements

Make sure that your own satellite antenna system is equipped for digital reception in the high-band range with at least one universal LNB.

Reception system presets

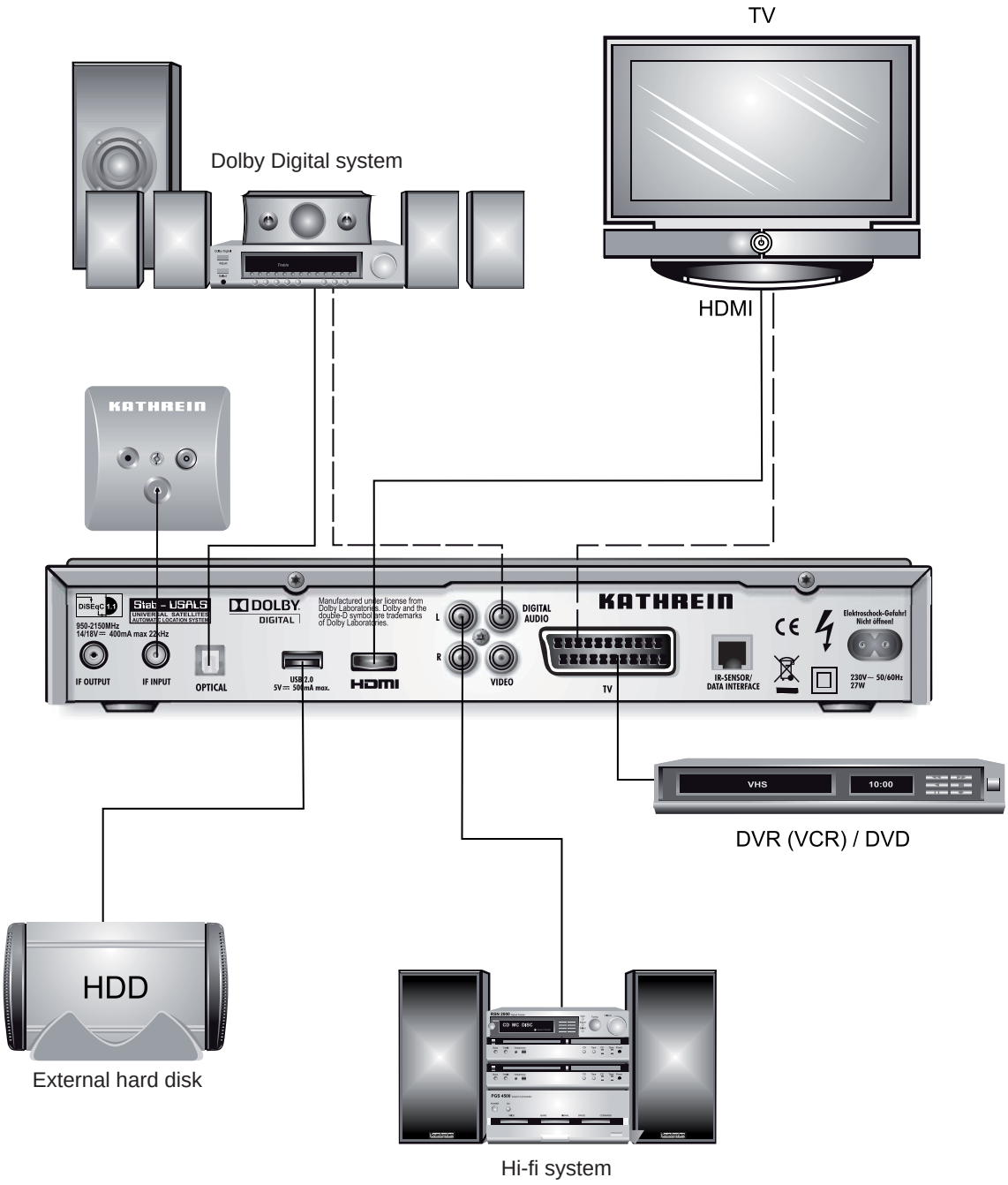
The presets for the control signals have been made for standard reception systems, i.e. 14/18 V for polarity reversal and 22 kHz switching signal for low/high band changeover on multi-feed reception systems.

USB port

For recording a broadcast you need an external USB storage medium (such as an external hard disk with a USB connection), which you can connect to the USB 2.0 interface at the rear of the receiver. The USB storage medium must be formatted in the format “FAT” or “FAT 32”. Instructions on how to format an external USB storage medium can be found in the section “Main menu”, “Service menu”, “USB device management”.

Please note that the current available from the receiver at the USB 2.0 port is limited to only 500mA. For some hard disks that is not sufficient for correct operation. In order to ensure the optimum power supply to the hard disk you can either use an external hard disk with its own power supply or interpose a USB 2.0 hub with its own power supply.

Connection example



Connection and setup

TV and VCR connection

Connect the satellite receiver (HDMI or alternatively TV Scart socket) and the TV set using an HDMI or Scart cable (see “Connection example”). If your TV is stereo, you can receive the sound in stereo via the HDMI or Scart connection.
For system reasons, the same video signals are present at both the TV Scart socket and also the video cinch output.

Use a Scart cable to connect the satellite receiver (TV Scart socket) to the video recorder/PVR.

Connecting a video recorder/PVR to the TV Scart socket allows you only to record. It does not allow you to play back on the TV set via the receiver. If you are recording via an external video recorder/PVR, remember not to operate the receiver during recording, otherwise all the on-screen displays will appear on your recording.

Audio connection

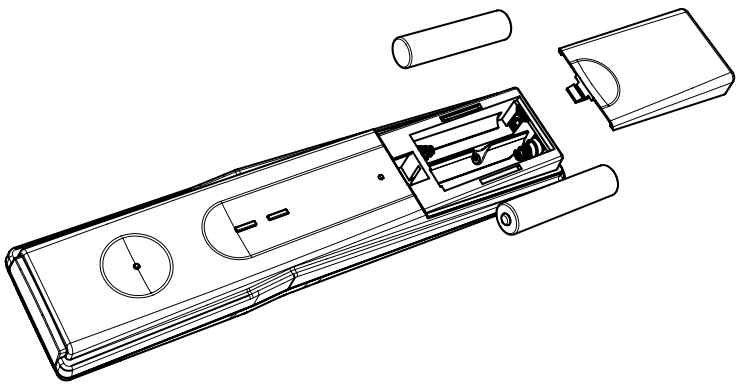
If you want to play the sound on your hi-fi system, connect the audio cinch sockets to the input sockets on the hi-fi system, using an appropriate cable (see “Connection example”).

Optical digital output

The fibre-optic output is intended for the connection of a Dolby Digital system (see “Connection example”).

Inserting batteries into the remote control

Remove the cover on the rear of the remote control. Insert the two batteries supplied into the remote control. Ensure correct polarity of the batteries; the + and – markings as indicated inside the battery compartment. Slide the cover back onto the housing until it locks in place.



First installation

Before you start to use the UFS 903, read the chapters “Safety Instructions - Important Instructions”, “Important Information” and “Connection and Getting Started” through to the item “First Installation”.

Do not connect the unit to the mains until all installation work has been properly carried out.

The guidance given in the “First Installation” item assumes that the receiver has been properly connected as per the “Safety Instructions - Important Instructions”, “Important Information” and “Connection and Getting Started” through to the item “First Installation”.

Buttons on the remote control required for first installation:

0 ␣ ... 9 wxyz	Numeric input	PIP (green)	Proceed to next step in first installation
FAV (red)	Go back one step in the first installation	OK	Confirm the changed values/setting
	Select/change individual menu parameters, navigation		
BACK	Cancel input, go back		

First switch your TV set on and select the AV channel slot you have used to connect the UFS 903 to your TV set. Start up the UFS 903 by switching on the power switch on the front of the unit. The following display appears:

Always check the bar at the bottom of the on-screen display. This provides information on what to do next.

Use the ▲ ▼ buttons to select the desired menu language for your receiver and confirm your selection using the OK button. The language selected will be shown highlighted in yellow. The following languages are available: German, English, French, Italian, Spanish, Czech, Polish and Turkish.

Press the PIP (green) button to move to the next menu.

Use the ◄ ► buttons to select whether to replace the factory pre-programmed channel list by a pre-sorted channel list for a specific country (at present only a limited number of pre-sorted channel lists are available). If you prefer to use the factory pre-programmed channel list, choose “No” under “Restore Channellist”.

Press the PIP (green) button to move to the next menu.

The following display appears:

Use the ✥ buttons here to select the basic settings for the video and audio output from the receiver to the TV set.

For this, refer to the operating manual for your TV set and take care to select only those settings that your TV set can process.

Video Output via

Select the connection on the receiver to which you have connected your television.
Either

HDMI **or** **SCART**

HDMI Format

Here you can select the picture resolution that will be sent to your TV set. Either

- 1080i (resolution 1920 x 1080, half-screen images)
- 576p (resolution 720 x 576, full-screen images) or
- 720p (resolution 1280 x 720, full-screen images)
- Automatic

TV aspect ratio

Select the TV's picture format. Either

- 4:3 or
- 16:9

Show 4:3 event

Here you can select the type of screen display mode for 4:3 broadcasts on a 16:9 TV set:

- normal (pillarbox)
- Stretched (Full Screen) or
- Zoomed in (Pan & Scan)

Audio format via HDMI

Here you can select the type of audio signal that is transmitted by the HDMI interface. Select the signal that your TV set can process:

- Decoded PCM or
- S/PDIF format

Picture format

Select the type of screen display, depending on your setting for the TV format:

- TV format “4:3”: Pan & Scan or Letterbox
- TV format “16:9”: Always 16:9 or automatic

TV-Scart-Output

Select the type of video signal at the TV Scart socket here. Select the signal that your TV set can process.

- CVBS – Colour Video Baseband Signal
- RGB – Red/Green/Blue signal or
- Y/C – S-Video signal (luminance/chrominance)

Press the PIP (green) button to move to the next menu.

The settings for the tuner configuration should be performed by a specialist engineer for this reception system.

You should only perform the tuner configuration yourself if you are fully familiar with the particulars of your reception system.

System

Use the buttons here to select the setting to match your reception system. You can set up the tuner configuration for the following types of reception systems:

- DiSEqC™1.0
- DiSEqC™1.1
- DiSEqC™1.2
- USALS
- One cable system
- Simple LNB

Continue as described in the first installation for the type of reception you have selected.

DiSEqC™1.0

When selecting the satellite(s), make sure that your reception position is aligned to the desired satellite(s)!

Number of Satellites

Use the ◄ ► buttons to select how many satellites (max. 4) you would like to receive with your reception system. The following display appears (example):

Use the ▲ ▼ buttons to select the first satellite slot. Press the OK button to open the menu for the satellite settings. The following display appears (example):

Satellites and Position

Use the ◄ ► buttons to set the desired satellite (selection from 17 pre-programmed options).

LNB type (settings)

Here use the ◄ ► buttons to select the LNB type used in your system. The selections available are “Universal” and “user-defined” (the selection “Wideband” is required only for single-cable feed systems).

Universal:
No further input is required, since all necessary frequency ranges are covered by a universal LNB.

user-defined:
If you choose not to use a universal LNB, you must here set the frequency ranges for which your LNB was configured.

Use the ▲ ▼ buttons to select the frequency range to be changed (low, high or limit frequency).

Use the ◄ ► buttons or the numbers buttons to set the exact frequency for which your LNB was configured.

Test transponder

To check whether the settings that you have made are correct, use the ▲ ▼ buttons to move to the “Test transponder” field. Use the ◄ ► buttons to select the required transponder from the various ones listed. If your settings are correct, you will see at the top right of the screen the live signal of a channel from the currently selected transponder.

If you do not receive a signal, check your settings again and if necessary call for expert help.

You have now completed all settings for the first satellite. Press the BACK button to return to the “Satellite Selection Menu” and perform the settings in the same way for the remaining satellites.

When you have finished configuring the satellite, press the PIP (green) button. The receiver then automatically calls up the selection menu for the channel search. Continue the first installation by selecting “Execute Channel search”.

DiSEqC™1.1

When selecting the satellite(s), make sure that your reception position is aligned to the desired satellite(s)!

Satellite selection

Use the ▲▼ buttons and the ► button to select which satellites (max. 64) you would like to receive with your reception system. The following display appears (example):

To deactivate a satellite, use the ▲▼ buttons to select it and then press the ◄ button.

Use the ▲▼ buttons to select the first satellite slot. Press the OK button to open the menu for the satellite settings. The following display appears (example):

Satellite

Use the ◄► buttons to adjust the desired satellites for the position you have selected. However you can select here only those satellites that you had previously identified (checked).

DiSEqC switch

Use the ◄► buttons here to select the correct setting for your reception system (1, 2, 3, ... 16).

Position

Use the ◄ ► buttons here to select the correct setting for your reception system (1, 2, 3 or 4).

1 For the first satellite on the tuner (item A on the system)
2 For the second satellite on the tuner (item B on the system)
3 For the third satellite on the tuner (item C on the system)
4 For the fourth satellite on the tuner (item D on the system)

Repetition

Use the ◄ ► buttons here to select the correct setting for your reception system (0, 1, 2, or 3).

0 DiSEqC™ command is not repeated
1 DiSEqC™ command is repeated once
2 DiSEqC™ command is repeated twice or
3 DiSEqC™ command is repeated three times

LNB Type (settings)

Press the OK button and use the ◄ ► buttons to select the LNB type used in your system. The selections available are “Universal” and “user-defined” (the selection “Wideband” is required only for single-cable feed systems).

Universal:
No further input is required, since all necessary frequency ranges are covered by a universal LNB.

user-defined:
If you choose not to use a universal LNB, you must here set the frequency ranges for which your LNB was configured.

Use the ▲ ▼ buttons to select the frequency range to be changed (low, high or limit frequency).

Use the ◄ ► buttons or the numbers buttons to set the exact frequency for which your LNB was configured.

Then press the OK button to save your LNB selection.

Test transponder

To check whether the settings that you have made are correct, use the ▲ ▼ buttons to move to the “Test transponder” field. Use the ◄ ► buttons to select the required transponder from the various ones listed. If your settings are correct, you will see at the top right of the screen the live signal of a channel from the currently selected transponder.

If you do not receive a signal, check your settings again and if necessary call for expert help.

You have now completed all settings for the first satellite. Press the BACK button to return to the “Satellite Selection Menu” and perform the settings in the same way for the remaining satellites.

When you have finished configuring the satellite, press the PIP (green) button. The receiver then automatically calls up the selection menu for the channel search. Continue the first installation by selecting “Execute Channel search”.

DiSEqC™1.2

Use the ▲ ▼ buttons to select “Move to the null position” and then press the OK button. The turntable will be instructed to move to its null position.

Set borders

Select the “Set borders” item with ▲ ▼ and confirm by pressing the OK button. In this menu you can set the limits for your turntable. This is particularly necessary if the turntable has only a restricted range in which it can turn before striking an obstruction (such as a wall or tree). The following display appears:

The following buttons allow you to control the movement of the turntable:

- ◄◄ Start slow rotation to the West
- ◄ Rotate to the West step by step
- ► Rotate to the East step by step
- ►► Start slow rotation to the East

Once you have reached the desired East/West border, switch to the respective line “Set East border” or “Set West border” and press the OK button to confirm.

If you subsequently wish to delete the set borders, switch to the line “Delete borders” and press the OK button to confirm deletion of the borders. You can then set new values for the limits. Once you have set all the limits, press the BACK button.

Configure satellites

Press the OK button to call up the menu. Use the ▲▼ buttons and the ▶ button to select which satellites (max. 64) you would like to receive with your reception system. The following display appears (example):

To deactivate a satellite, use the ▲▼ buttons to select it and then press the ▶ button.

Use the ▲▼ buttons to select the first satellite slot. Press the OK button to open the menu for the satellite settings. The following display appears (example):

Satellite

Use the ◀▶ buttons to adjust the desired satellites for the position you have selected. However you can select here only those satellites that you had previously identified (checked).

Test transponder

Use the ◀▶ buttons to select a transponder for the satellite selected above.

LNB Type (settings)

Press the OK button and use the ◀▶ buttons to select the LNB type used in your system. The selections available are “Universal” and “user-defined” (the selection “Wideband” is required only for single-cable feed systems).

Universal:
No further input is required, since all necessary frequency ranges are covered by a universal LNB.

user-defined:
If you choose not to use a universal LNB, you must here set the frequency ranges for which your LNB was configured.

Use the ▲▼ buttons to select the frequency range to be changed (low, high or limit frequency).

Use the ◄► buttons or the number keys to set the exact frequency for which your LNB was configured.

Then press the OK button to save your LNB selection.

Stop on signal

Use the ▲▼ buttons to select “Stop on signal”. Use the ◄► buttons to select here whether the motorised antenna should stop its rotary movement immediately on receipt of a signal from the desired satellite. You can choose between “Yes” and “No”.

Rotate antenna

Use the ▲▼ buttons to select “Rotate antenna”. Here you can control the movements of the motorised antenna, using the following buttons:

- ◄◄ Start slow rotation to the West
- ◄ Rotate to the West step by step
- ► Rotate to the East step by step
- ►► Start slow rotation to the East

Set the turntable so that both of the bars “Signal-Strength” and “Signal-Quality” on the right of the screen show the highest available percentage values. When you have reached the best available reception signal, use the ▲▼ buttons to switch to “Save” and press the OK button. The receiver will now save this satellite. You have now completed all settings for the first satellite. Press the BACK button to return to the “Satellite Selection Menu” and perform the settings in the same way for the remaining satellites.

When you have finished configuring the satellite, press the PIP (green) button. The receiver then automatically calls up the selection menu for the channel search. Continue the first installation by selecting “Execute Channel search”.

USALS

Use the ▲ ▼ buttons to select “Move to the null position” and then press the OK button. The turntable will be instructed to move to its null position.

Longitude

Use the ▲ ▼ buttons to select the “Longitude” line, and use the number keys here to input your actual longitude.

Latitude

Use the ▲ ▼ buttons to select the “Latitude” line, and use the number keys here to input your actual latitude.

Set borders

Select the ▲ ▼ “Set borders” item and confirm by pressing the OK button. In this menu you can set the limits for your turntable. This is particularly necessary if the turntable has only a restricted range in which it can turn before striking an obstruction (such as a wall or tree). The following display appears:

The following buttons allow you to control the movement of the turntable:

- ◄◄ Start slow rotation to the West
- ◄ Rotate to the West step by step
- ► Rotate to the East step by step
- ►► Start slow rotation to the East

Once you have reached the desired East/West border, switch to the respective line “Set East border” or “Set West border” and press the OK button to confirm.

If you subsequently wish to delete the set borders, switch to the line “Delete borders” and press the OK button to confirm deletion of the borders. You can then set new values for the limits. Once you have set all the limits, press the BACK button.

Configure satellites

Press the OK button to call up the menu. Use the ▲▼ buttons and the ▶ button to select which satellites (max. 64) you would like to receive with your reception system. The following display appears (example):

To deactivate a satellite, use the ▲▼ buttons to select it and then press the ▶ button.

Use the ▲▼ buttons to select the first satellite slot. Press the OK button to call up the menu for the satellite settings. The following display appears (example):

Satellite

Use the ◀▶ buttons to select a satellite for which you wish to make turntable settings. However you can select here only those satellites that you had previously identified (checked).

Test transponder

Use the ◀▶ buttons to select a transponder for the satellite selected above.

LNB Type (settings)

Press the OK button and use the ◀▶ buttons to select the LNB type used in your system. The selections available are “Universal” and “user-defined” (the selection “Wideband” is required only for single-cable feed systems).

Universal:
No further input is required, since all necessary frequency ranges are covered by a universal LNB.

user-defined:
If you choose not to use a universal LNB, you must here set the frequency ranges for which your LNB was configured.

Use the ▲ ▼ buttons to select the frequency range to be changed (low, high or limit frequency).

Use the ◄ ► buttons or the number keys to set the exact frequency for which your LNB was configured.

Then press the OK button to save your LNB selection.

Move to satellite

Use the OK Taste to instruct the turntable to move to the selected satellite. As soon as the turntable has found the correct satellite, you will see displayed in the top right of the screen the live signal of a channel for the currently selected transponder.

Use the BACK button to go back to the “Satellite Selection Menu”. Press the PIP (green) button; the receiver then automatically displays the selection menu for the channel search. Continue the first installation by selecting “Execute Channel search”.

LNB only

When selecting the satellites, make sure that your reception position is aligned to the desired satellite!

Satellite and Position

Use the ◄ ► buttons to set the desired satellite (selection from 17 pre-programmed options).

LNB Type (settings)

Use the ◄ ► buttons to select the LNB type used in your system. The selections available are “Universal” and “user-defined” (the selection “Wideband” is required only for single-cable feed systems such as the UAS 481 from Kathrein).

Universal and Wideband:
No further input is required, since all necessary frequency ranges are covered by a Universal/ Wideband LNB.

user-defined:
If you choose not to use a Universal or Wideband LNB, you must here set the frequency ranges for which your LNB was configured.

Use the ▲ ▼ buttons to select the frequency range to be changed (low, high or limit frequency).

Use the ◄ ► buttons or the number keys to set the exact frequency for which your LNB was configured.

Test transponder

To check whether the settings that you have made are correct, use the ▲ ▼ buttons to move to the “Test transponder” field. Use the ◄ ► buttons to select the required transponder from the various ones listed. If your settings are correct, you will see at the top right of the screen the live signal of a channel from the currently selected transponder.

If you are not receiving a signal, check your settings again and if necessary call for expert help.

When you have finished configuring the satellite, press the PIP (green) button. The receiver then automatically calls up the selection menu for the channel search. Continue the first installation by selecting “Execute Channel search”.

One Cable

When selecting the satellite(s), make sure that your reception position is aligned to the desired satellite(s)!

Number of Satellites

Use the ◄ ► buttons to select how many satellites (max. 2) you would like to receive with your reception system.

Then use the ▲ ▼ buttons to select “Configure satellites” and confirm by pressing the OK button. The following display appears (example):

Satellite and Position

Use the ◄ ► buttons to set the desired satellite (selection from 17 pre-programmed options).

LNB Type (settings)

Use the ◄ ► buttons to select the LNB type used in your system. The selections available are “Universal” and “user-defined” (the selection “Wideband” is required only for single-cable feed systems such as the UAS 481 from Kathrein).

Universal and Wideband:
No further input is required, since all necessary frequency ranges are covered by a Universal/ Wideband LNB.

user-defined:
If you choose not to use a Universal or Wideband LNB, you must here set the frequency ranges for which your LNB was configured.

Use the ▲ ▼ buttons to select the frequency range to be changed (low, high or limit frequency).

Use the ◄ ► buttons or the number keys to set the exact frequency for which your LNB was configured.

Test transponder

Use the ◄ ► buttons to select a transponder for the satellite selected above.

Then press the OK button to save the settings for the first satellite.

If you wish to receive a second satellite with your reception system, use the ▲ ▼ buttons to switch to the “Satellite and Position” line, and select the second satellite.

Then perform the settings (LNB and Test transponder) for the second satellite, in the same way as for the first satellite.

As soon as you have saved all settings for the selected number of satellites, the receiver skips back automatically to the previous menu. The following display appears:

Now use the ▲ ▼ buttons to select “New registration”, and press the OK button.

The following display appears:

Use the ◄ ► buttons to select the one cable system used in your reception system:

- KATHREIN UAS 481 (single-cable LNB)
- KATHREIN EXR 551
- KATHREIN EXR 552
- KATHREIN EXU 908
- KATHREIN EXR 4 subscriber
- KATHREIN EXR 8 subscriber
- User-defined (for all single-cable systems not covered by either of the above specifications)

If one or more receivers are already present on the system and an additional receiver is to be connected, when assigning the transmission frequency for the new receiver make sure that no transmission frequencies are duplicated. No frequency can be used by more than one receiver.

Continue as described in the first installation for the type of one cable reception you selected.

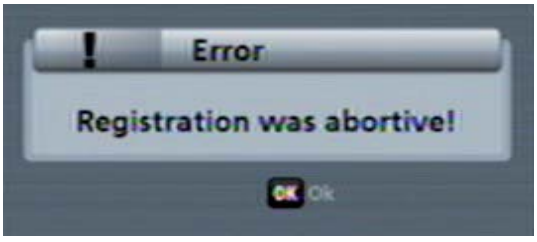
Single-cable KATHREIN UAS 481

Transmission channel

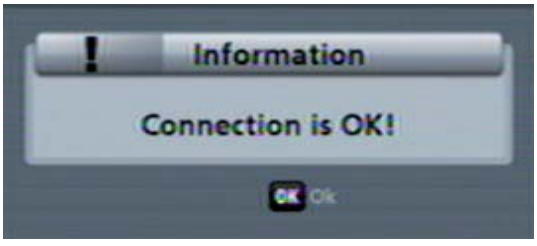
Use the ▲▼ buttons to switch to the “Transmission channel” line and use the ◄► buttons to select a free and available transmission channel (0, 1, 2 or 3).

Test connection

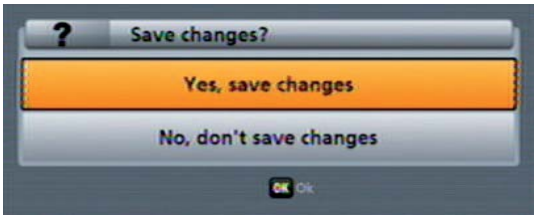
Use the ▲▼ buttons to switch to the “Test connection” line and then press the OK button to test your settings. The following display appears:



Press the OK button to confirm the displayed message. If no connection can be established to the single-cable system, check your settings (transmission channel) and if necessary call for expert help.



Press the OK button to confirm the displayed message. Then press the BACK button. The following display appears:



Use the OK button to confirm with “Yes, save changes”. Use the ▲▼ buttons to switch to the “System” line and then press then PIP (green) button. The receiver will automatically display the menu for the channel search. Continue the first installation by selecting “Execute Channel search”.

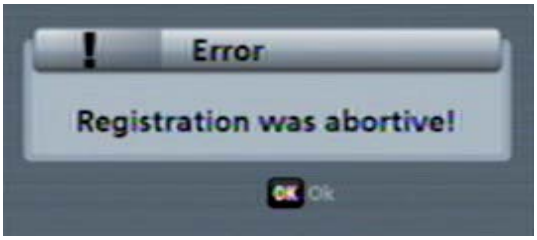
Single-cable KATHREIN EXR 551

Transmission channel

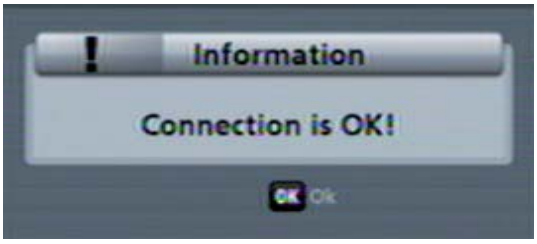
Use the ▲▼ buttons to switch to the “Transmission channel” line and use the ◄► buttons to select a free and available transmission channel (0 = 1400, 1 = 1516, 2 = 1632 or 3 = 1748).

Test connection

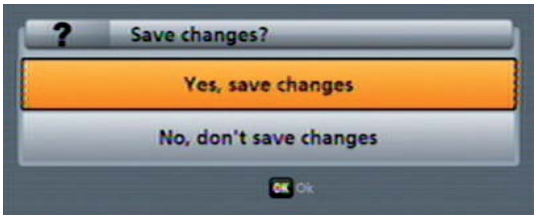
Use the ▲▼ buttons to switch to the “Test connection” line and then press the OK button to test your settings. The following display appears:



Press the OK button to confirm the displayed message. If no connection can be established to the single-cable system, check your settings (transmission channel) and if necessary call for expert help.



Press the OK button to confirm the displayed message. Then press the BACK button. The following display appears:



Use the OK button to confirm with “Yes, save changes”. Use the ▲▼ buttons to switch to the “System” line and then press then PIP (green) button. The receiver will automatically display the menu for the channel search. Continue the first installation by selecting “Execute Channel search”.

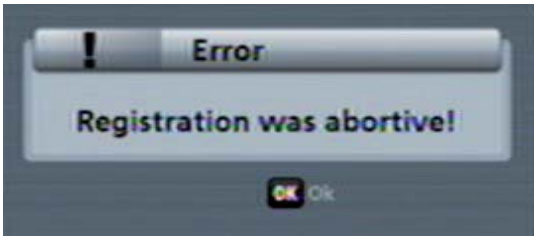
Single-cable KATHREIN EXR 552

Transmission channel

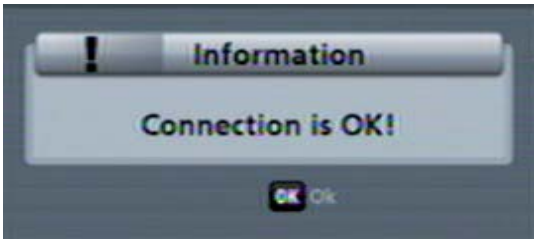
Use the ▲▼ buttons to switch to the “Transmission channel” line and use the number keys to enter a free and available transmission channel (0 = 1400 or 1 = 1516).

Test connection

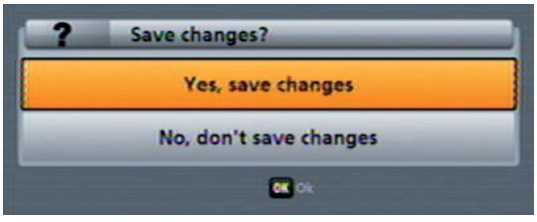
Use the ▲▼ buttons to switch to the “Test connection” line and then press the OK button to test your settings. The following display appears:



Press the OK button to confirm the displayed message. If no connection can be established to the single-cable system, check your settings (transmission channel) and if necessary call for expert help.



Press the OK button to confirm the displayed message. Then press the BACK button. The following display appears:



Use the OK button to confirm with “Yes, save changes”. Use the ▲▼ buttons to switch to the “System” line and then press then PIP (green) button. The receiver will automatically display the menu for the channel search. Continue the first installation by selecting “Execute Channel search”.

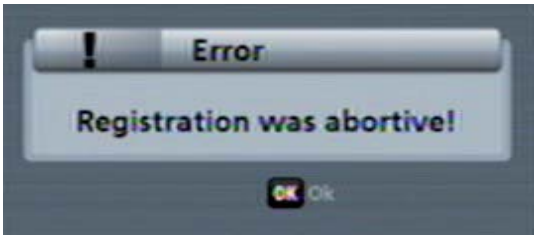
Single-cable KATHREIN EXU 908

Transmission channel

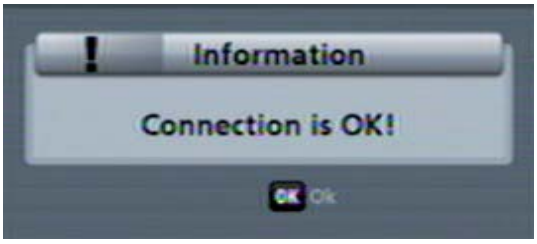
Use the ▲▼ buttons to switch to the “Transmission channel” line and use the ◄► buttons to select a free and available transmission channel (0 = 1284, 1 = 1400, 2 = 1516, 3 = 1632, 4 = 1748, 5 = 1864, 6 = 1980 and 7 = 2096).

Test connection

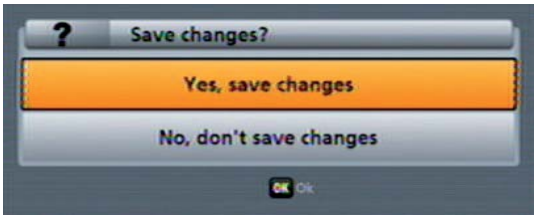
Use the ▲▼ buttons to switch to the “Test connection” line and then press the OK button to test your settings. The following display appears:



Press the OK button to confirm the displayed message. If no connection can be established to the single-cable system, check your settings (transmission channel) and if necessary call for expert help.



Press the OK button to confirm the displayed message. Then press the BACK button. The following display appears:



Use the OK button to confirm with “Yes, save changes”. Use the ▲▼ buttons to switch to the “System” line and then press then PIP (green) button. The receiver will automatically display the menu for the channel search. Continue the first installation by selecting “Execute Channel search”.

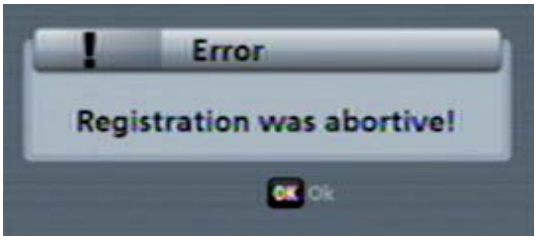
Single-cable KATHREIN EXR 4 T...

Transmission channel

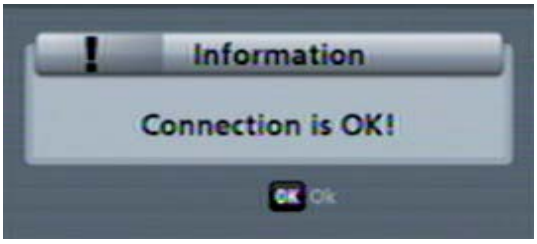
Use the ▲▼ buttons to switch to the “Transmission channel” line and use the ◄► buttons to select a free and available transmission channel (0 = 1284, 1 = 1400, 2 = 1516 or 3 = 1632).

Test connection

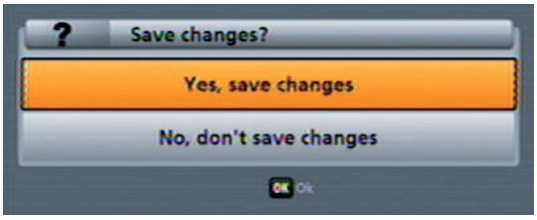
Use the ▲▼ buttons to switch to the “Test connection” line and then press the OK button to test your settings. The following display appears:



Press the OK button to confirm the displayed message. If no connection can be established to the single-cable system, check your settings (transmission channel) and if necessary call for expert help.



Press the OK button to confirm the displayed message. Then press the BACK button. The following display appears:



Use the OK button to confirm with “Yes, save changes”. Use the ▲▼ buttons to switch to the “System” line and then press then PIP (green) button. The receiver will automatically display the menu for the channel search. Continue the first installation by selecting “Execute Channel search”.

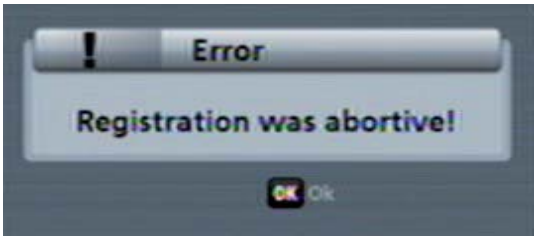
Single-cable KATHREIN EXR 8 T...

Transmission channel

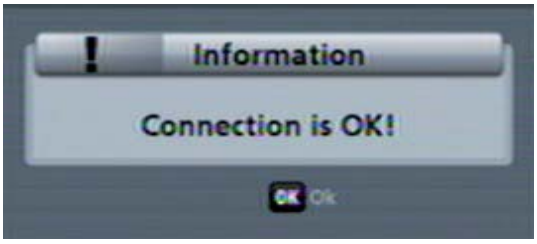
Use the ▲▼ buttons to switch to the “Transmission channel” line and use the ◄► buttons to select a free and available transmission channel (0 = 1284, 1 = 1400, 2 = 1516, 3 = 1632, 4 = 1748, 5 = 1864, 6= 1980, 7 = 2096).

Test connection

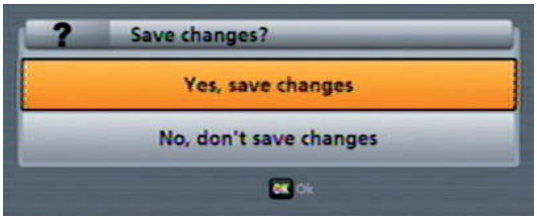
Use the ▲▼ buttons to switch to the “Test connection” line and then press the OK button to test your settings. The following display appears:



Press the OK button to confirm the displayed message. If no connection can be established to the single-cable system, check your settings (transmission channel) and if necessary call for expert help.



Press the OK button to confirm the displayed message. Then press the BACK button. The following display appears:



Use the OK button to confirm with “Yes, save changes”. Use the ▲▼ buttons to switch to the “System” line and then press then PIP (green) button. The receiver will automatically display the menu for the channel search. Continue the first installation by selecting “Execute Channel search”.

Single-cable - user-defined

Refer to the documentation supplied with your system for the settings for the SCRs, frequencies and any PIN assigned to the tuner. You will find there a printed list showing the assignment between the various SCRs and the respective transmission frequencies. It may happen that you cannot freely select the PIN for protection of individual frequencies; this also may be listed in the documentation for the single-cable components.

Please note also that multiple receivers cannot share the same frequencies/ channels - the receivers would interfere with each other.

Transmission channel

Use the ▲▼ buttons to switch to the “Transmission channel” line and use the ◄► buttons to select a free and available transmission channel.

Transmission frequency

Use the ▲▼ buttons to switch to the “Transmission frequency” line and use the ◄► buttons to select a free and available transmission frequency, or use the number keys to enter the required frequency. When doing this, bear in mind the assignment of transmission frequencies to transmission channels.

Secure channel with PIN

If your one cable system allows the transmission frequency to be protected by inputting a PIN, this is the menu where that can be done. No other receiver can then use this transmission frequency unless the PIN is input.

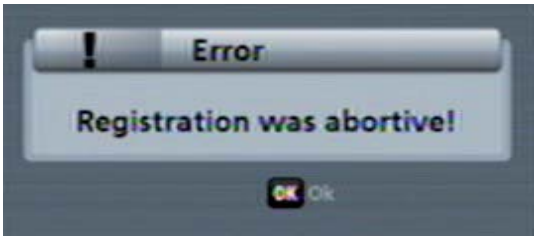
Use the ▲▼ buttons to switch to the “Secure channel with PIN” line and then use the ◄► buttons to select “Yes”.

You then have the facility of using the number keys to input a PIN code (0-255) in the line beneath “Password PIN”.

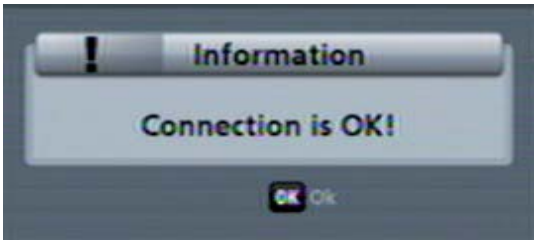
Test connection

Use the ▲▼ buttons to switch to the “Test connection” line and then press the OK button to test your settings.

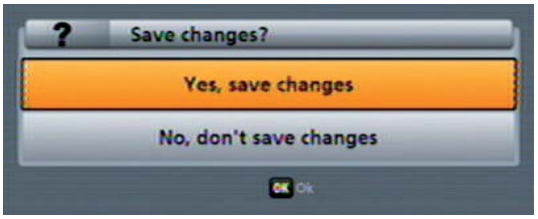
The following display appears:



Press the OK button to confirm the displayed message. If no connection can be established to the single-cable system, check your settings (transmission channel) and if necessary call for expert help.



Press the OK button to confirm the displayed message. Then press the BACK button. The following display appears:



Use the OK button to confirm with “Yes, save changes”.

The following display appears (example):

Use the ▲▼ buttons to switch to the “System” line and then press then PIP (green) button. The receiver will automatically display the menu for the channel search. Continue the first installation by selecting “Execute Channel search”.

Execute Channel search

If you do not want to perform a channel search, press the PIP (green) button and continue with the “Date and Time” section.

If you want to perform a channel search, use the ◄ ► buttons to select “Yes”.

The following display appears:

Channel Search Mode

Use the ◄ ► buttons to select the type of channels that are to be searched for. You have three options:

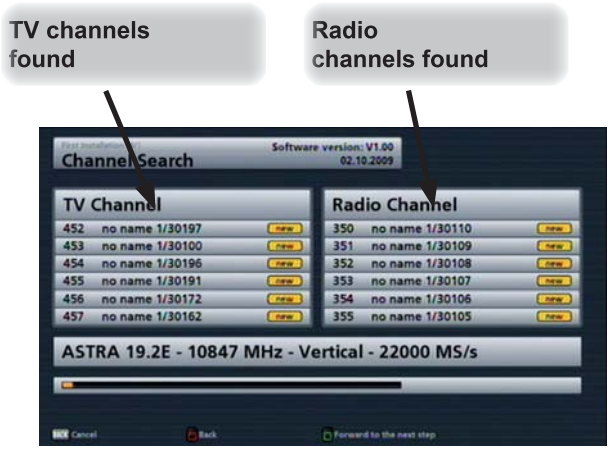
- “free & scrambled” All channels are searched for
- “only free” Only free-to-air channels are searched for
- “only scrambled” Only encrypted channels are searched for

To view encrypted channels you need an appropriate CA (Conditional Access) module and a valid smart card together with a valid subscription to a Pay-TV provider (see also the section “Main menu”, “Settings”, “Common Interface”).

Network search

Use the ◄ ► buttons (On/Off) to select whether a network search should be performed. If you set the network search to “Off”, only the factory default transponders for the satellite(s) you previously selected will be searched for new as yet unsaved channels. If you set the network search to “On”, the transponder network enables additional transponders that have not yet been stored to be located. They are then stored and searched for new channels in the same way as the existing transponders.

When you have completed all settings, press the PIP (green) button. The following displays appear (example):



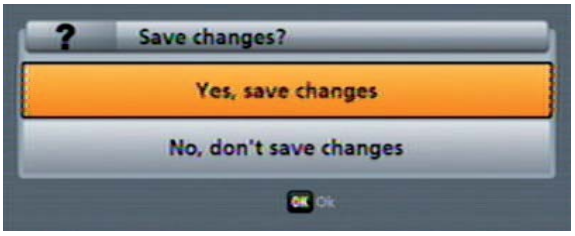
During the search you will see the following display (example):

Newly found channels are identified with the suffix “New” (see example illustration on the right).

Note:
You can cancel the search at any time by pressing the BACK button.

After completion of the search, you will see the following display (example):

Press the OK button.



The following display appears:
Confirm the save procedure by pressing the OK button. The newly found channels are added to the end of the existing overall list and the receiver then skips automatically to the settings for “Date and Time”.

Date and Time

Local time offset (UTC)

Here you can use the ◄ ► buttons to select the local time offset to UTC (formerly GMT) (e.g. for Germany: + 1 hour). You can set the offset in 1 hour steps. The maximum offset is 12 hours (+ and -).

Automatic clock change (summer/winter time)

Here you can use the ◄ ► buttons to select whether the receiver should automatically change over to and from summer and winter time (On/Off).

update time on

Here you can use the ◄ ► buttons to select the channel from which the receiver should obtain the time information. You can choose between “current Channel” and “all Channels”. This setting can be changed under the main menu “Settings”, “Date and Time” at any time in future.

When you have completed all settings, press the PIP (green) button, to complete the first installation.

General operating instructions

In this chapter we would like to offer you a few basic tips and explanations about using the UFS 903. These are not specific to any one menu, rather they can be used as help and orientation in practically all menus.

Alphanumeric Inputs

For inputs such as names of favourites or search expressions, use the keyboard displayed on the screen (see example screenshot).

The letters assigned to the number keys also apply to your remote control. They are used in a similar way to those on a mobile phone. The following buttons can be used for input or to select an action:

Button	Assigned character/action				
Press	1 x	2 x	3 x	4 x	5 x
1 .:@	.	ß	?	!	1
2 abc	a	b	c	2	ä
3 def	d	e	f	3	
4 ghi	g	h	i	4	
5 jkl	j	k	l	5	
6 mno	m	n	o	6	ö
7 pqrs	p	q	r	s	7
8 tuv	t	u	v	8	ü
9 wxyz	w	x	y	z	9
0 ␣	1 x space 2 x 0				
◄	Last character is deleted				
MENU	Switch between upper case and lower case letters				

OK	Confirm the term input
BACK	Cancel input without saving
TEXT	Cancel input without saving

After you have input the desired expression, press the OK button in order to load the name/search expression BACK or the TEXT button to abort the input.

Editing and selection options in the menus

In some menus/displays this box is shown with a particular colour gradation. Each colour gradation stands for a specific view/selection. The colours assigned to the buttons are shown in the table below. Where the functions of these buttons are assigned for the current menu/view, they are also shown in the line at the bottom of the display.

	Colour	Button on the remote control
	green	PIP
	yellow	OPT
	red	FAV
	blue	TV/R

Always pay attention to the bar at the bottom of the on-screen display. These provide information on what to do next.

In many menus, all the editing and selection options for that menu are shown at the bottom of the display. Where a specific remote control button is required for executing them or calling them up, this also will be shown (see example screenshot above).

Remote control code

You can use this function to allow you to operate several receivers (e.g. four UFS 903 units) using the same remote control. You can assign each receiver its own remote control code. This pre-supposes that the receiver was supplied with the RC 671 remote control (e.g. UFS 903) or with the RC 660 remote control (e.g. UFS 910).

First switch all receivers off at the power switch.

To configure the current receiver to a remote control code:

Switch on the relevant receiver. You can now use the remote control for your receiver to set a new remote control code (the remote control code 1 is set as standard). Simultaneously press buttons:

- BACK + 9 wxyz + 1 .,:@ for remote control code 1
- BACK + 9 wxyz + 2 abc for remote control code 2
- BACK + 9 wxyz + 3 def for remote control code 3
- BACK + 9 wxyz + 4 ghi for remote control code 4

To set the remote control in future for whatever remote control code is required, proceed as follows:

- BACK + 1 .,:@ for remote control code 1
- BACK + 2 abc for remote control code 2
- BACK + 3 def for remote control code 3
- BACK + 4 ghi for remote control code 4

If you have another Kathrein receiver in use that was supplied with the RC 660 remote control, you can use the UFS 903 remote control to operate that other receiver also. On the UFS 903 remote control, the codes for remotely controlling the RC 660 begin with "5": BACK + 5 jkl = remote control code 1 for the RC 660, BACK + 6 mno = remote control code 2 for the RC 660, BACK + 7 pqrs = remote control code 3 for the RC 660 and BACK + 8 tuv = remote control code 4 for the RC 660

Basic operation in TV or Radio mode (live operation)

Remote control for live operation (TV/Radio)

Currently unavailable

Numeric keypad

Select main menu

Volume “-” (softer)

Mute

FAV = Call up favourites list

PIP = 1 x display of 4:3 broadcast

PIP = 2 x HDMI format

Call up EPG (Electronic Programme Guide)

Select last channel called up, exit displays/menus step by step

◄◄ = Fast Rewind

► = Start Playback/ Call up recording archive

►► = Fast Forward

Operation (on)/Standby (off)

Select Teletext

Volume “+” (louder)

Channel selection

Call up Channel Information (Info Banner and Detail Information)

OPT = Call up Options Menu

TV/R = Switch between TV/radio mode

Calling up the recording archive

= Navigation/channel or change channel option

OK = Call up Channel List, Confirmation/Call up Selection

Not currently used

❚❚ = Pause

● = Start Recording (OTR)

■ = Stop Playback/ Timeshift/Record

Basic operation in TV or Radio mode (live operation)

Switching between TV and Radio operation

To switch between TV and radio mode, press the TV/R (blue) button.

Adjusting the volume

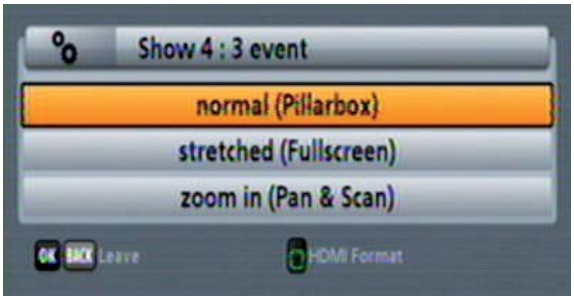
The volume is adjusted using the VOL + VOL - buttons.

Display of 4:3 broadcasts and HDMI format

These settings can also be made at any time in the menu “Settings”, “TV, Video and Audio”.

Show 4:3 event

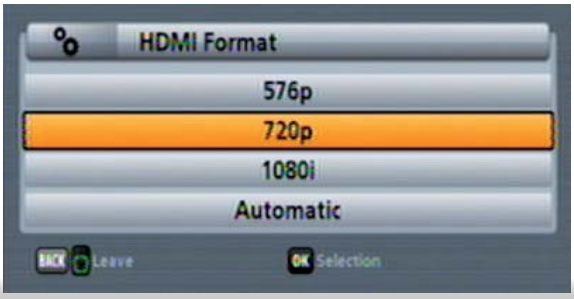
Press the PIP (green) button. The following display appears:



Use the ▲ ▼ buttons to select the desired type of display for a 4:3 broadcast and confirm your selection using the OK button. Further information can be found in the section “Main menu”, “Settings”, “TV, Video and Audio”.

HDMI Format

Press the PIP (green) button twice. The following display appears:



Use the ▲ ▼ buttons to select the desired resolution and confirm your selection using the OK button. Further information can be found in the section “Main menu”, “Settings”, “TV, Video and Audio”.

Channel selection

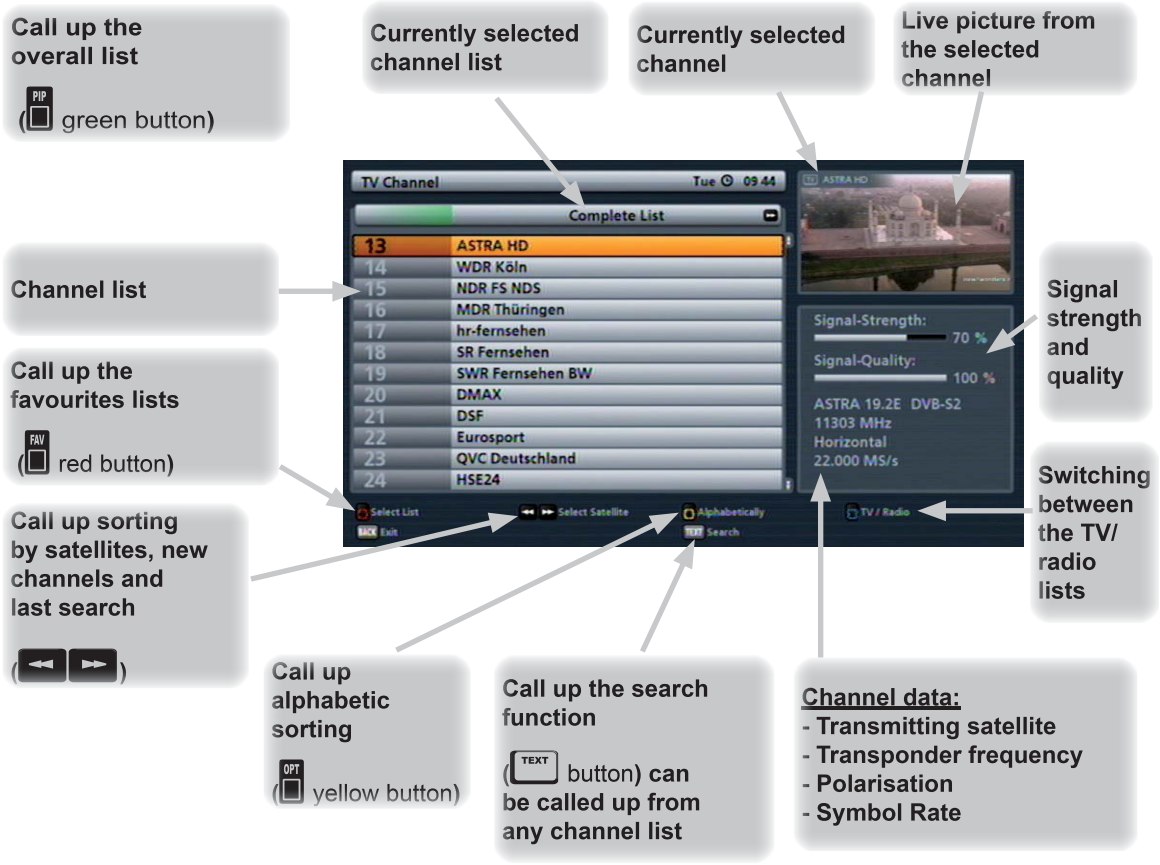
Direct channel selection

The + - button allows the channel to be selected from the ordered version of the currently selected channel list/favourites list. If the channel slot in the channel list is known, the desired channel can also be called up directly by inputting the channel slot, using the number keys on the remote control (example: ASTRA HD+ is at channel slot 10 in the currently selected channel list - to call it up, successively press the 1 .,:@ 0 ␣ buttons on the remote control).

Basic operation in TV or Radio mode (live operation)

Channel selection from the channel list

Press the OK button to open the channel list. The following display appears:



Information on selecting favourites lists:

You can also call up the favourites lists directly from TV screen, using the FAV (red) button. Then use the cursor buttons (▲▼◄►) to select the desired favourites list and confirm your selection using the OK button. The receiver automatically selects the first channel saved in the favourites list and returns to the TV screen. You can now select the sequence of channels saved in the selected favourites list, using the + - buttons.

Basic operation in TV or Radio mode (live operation)

Now use the respective coloured button to select the category in which you wish to open a channel list:

FAV (red) button: Call up the "Favourites lists" category

Contains the following channel lists:

- Favourites lists 1-8

PIP (green) button: Call up the "Complete List" category

Contains the following channel lists:

- Complete list
- Channel lists ordered by satellite
- New channels
- (search result) last search

OPT (yellow) button: Call up the alphabetically ordered lists

Contains the following channel lists:

- A-Z
- Z-A
- 0-9
- Ordered by individual letters

Channel list selection:

Use the ◄◄ ►► buttons to scroll through the currently available channel lists.

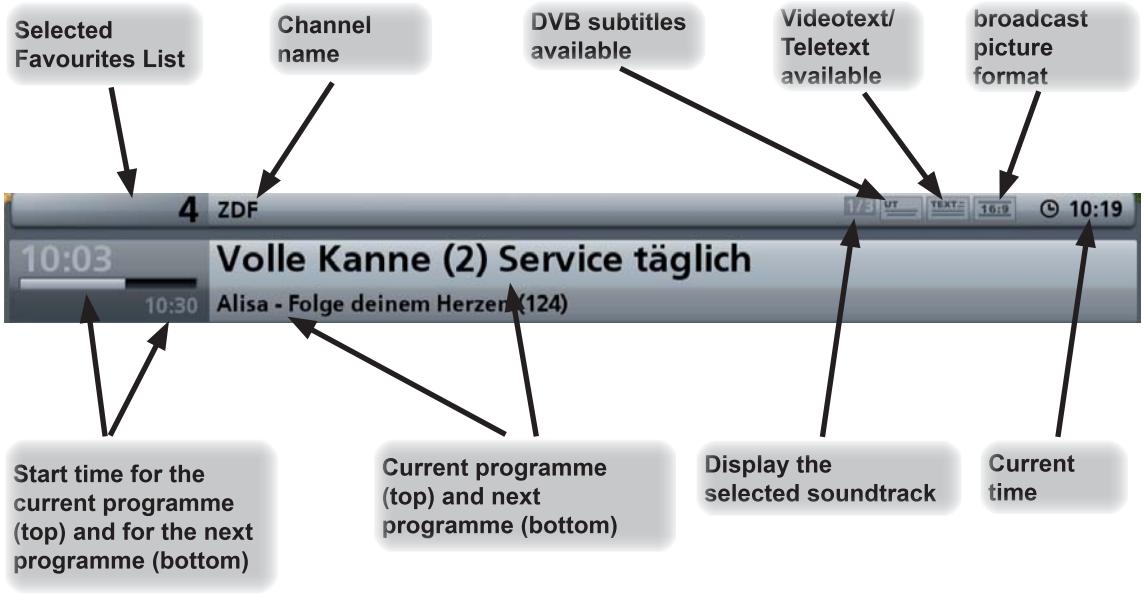
Select the channel:

After selecting the desired channel list, the desired channel is selected using the cursor buttons (✣) and called up using the OK button. To exit the channel list and return to the TV picture, press the OK button again, or press the BACK button.

Basic operation in TV or radio mode (live operation)

Channel messages

Channel information is shown for a few seconds each time the channel is changed (this can be changed under “Settings”, “Customize screen menu”) or displayed continuously by pressing the i button.

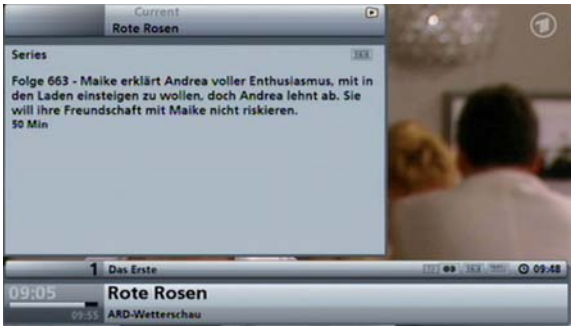


Channel information

Press the i button for the TV picture twice to view further information on the current broadcast, insofar as this is broadcast by the channel provider (see example screenshot below).

Use the ▲ ▼ buttons to scroll through the pages. By pressing the ◄ ► buttons you can obtain information on the programmes to come on the current channel.

Press the i or BACK buttons to exit the display.


Current
Rote Rosen
Series
Folge 663 - Maike erklärt Andrea voller Enthusiasmus, mit in den Laden einsteigen zu wollen, doch Andrea lehnt ab. Sie will ihre Freundschaft mit Maike nicht riskieren.
50 Min
1 Das Erste
09:48
09:05
Rote Rosen
ARD-Wetterschau

Basic operation in TV or Radio mode (live operation)

Calling up the options channel

If the channel OSD contains the following icon , this is a portal channel. Press the OPT (yellow) button. The following display then appears (example):

Use the ▲ ▼ buttons to select your desired channel option, and press the OK button to confirm your selection. After selecting a channel option using the ▲ ▼ buttons, skip through the other channel options in your selected portal channel.

Select Audio track

If the channel banner displays for instance 1/2 in front of the symbol for the selected soundtrack, this tells you that you have currently selected the first of the two available soundtracks.

Press the OPT (yellow) button. The following display then appears (example):

Use the cursor buttons to select your desired soundtrack option, and press the OK button to confirm your selection.

Basic operation in TV or Radio mode (live operation)

Select subtitle

If the channel banner includes the following symbol for subtitles [UT], you can call up the “Subtitle” function as follows: Press the [OPT] (yellow) button twice. The following display then appears (example):

Use the [▲][▼] buttons to select the desired subtitles and confirm by pressing the [OK] button. The receiver will automatically return to the TV picture.

Videotext (Teletext)

This symbol [TEXT] in the channel information shows you whether Teletext is available for the selected channel.

When you press the [TEXT] button, the receiver processes the videotext/Teletext service data for your TV set to display, even when the signal is encrypted.

During the search, the page which is being searched for is displayed in the top left-hand corner with the time and date displayed at the top right. When the search is finished, the Teletext being broadcast by the relevant encrypted provider appears:

You have several options for opening the desired pages:

- Input with number keys.
- Scroll backwards and forwards using the [▲][▼] buttons
- Scroll up and down in the sub-pages (e.g. 1/2 and 2/2) using the [◄][►] buttons

100 100 ZDFtext Mi 09.09.09 11:07:12
Mit dem Zweiten sieht man besser
Studie: Opel für GM viel teurer . 120
Afghanistan: Neue Einsatz-Debatte 123
Thüringen: Rot-rot-grünes Treffen 125
Deutlich mehr Firmenpleiten 134
DFB-Team hat bereits WM-Quartier 207
US Open: Nadal im Viertelfinale . 211
B-Probe von Astarloza positiv ... 216
10.30 Alisa - Folge deinem 309
11.15 Bianca - Wege zum Glück 311
Ihr Tag aus kosmischer Sicht 580
Der aktuelle Marktbericht 617
Carpendale rügt Bohlens Grammatik . 801
P- P+ 101 110

- Selection using the options indicated by the coloured buttons [FAV] (red), [PIP] (green), [OPT] (yellow) and [TV/R] (blue) listed across the bottom of the screen

Press [BACK] or [TEXT] to exit Teletext.

Basic operation in TV or Radio mode (live operation)

One-Touch Recording (OTR)

To start recording directly to the hard disk, press the ● (red dot) button. The following display appears (example):

The recording will start automatically after five seconds provided no changes to the start time/end time of the recording have been made.

Use the ▲ ▼ buttons to select the lines to be changed; make the changes using the ◄ ► buttons.

Start:

The start time for a recording can be changed manually using the number buttons or using the ◄ ► buttons.

End:

The end of the recording is determined automatically by the receiver, based on the available EPG data. You can however change it if you prefer, using the number buttons or using the ◄ ► buttons.

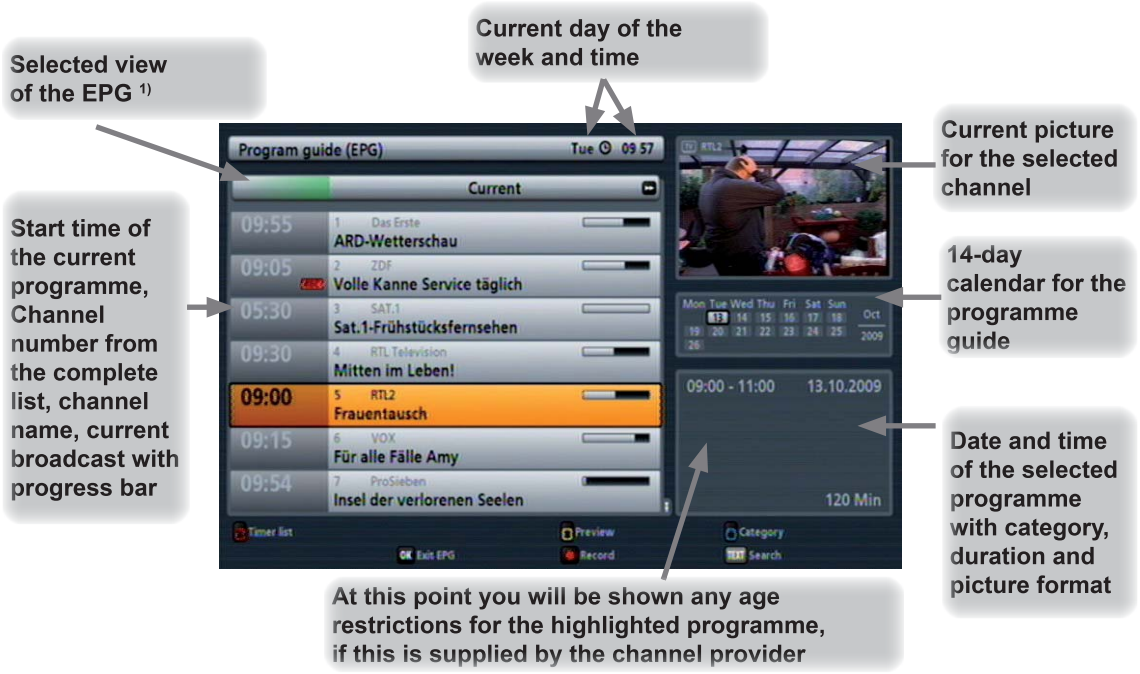
Press the OK button to start the recording - you can cancel it by pressing the BACK or the ● (red dot) button. After the recording has started, if you want to stop it you must press the ■ button and confirm with the OK button.

EPG (Electronic Programme Guide)

The EPG data is not available immediately after first installation. The EPG data is only updated after the first EPG update at night or the first time you switch the receiver to standby mode.

Calling up the EPG

The EPG is opened by pressing the EPG button. You will automatically see the view you selected in the menu (“Settings”, “User-Defined Settings”, “EPG Settings”) - irrespective of which view you selected last time before exiting the EPG. The following display appears (example):


Selected view of the EPG 1)
Current day of the week and time
Current picture for the selected channel
Start time of the current programme, Channel number from the complete list, channel name, current broadcast with progress bar
14-day calendar for the programme guide
Date and time of the selected programme with category, duration and picture format
At this point you will be shown any age restrictions for the highlighted programme, if this is supplied by the channel provider
Program guide (EPG)
Tue 09 57
Current
09:55 ARD-Wetterschau
09:05 Volle Kanne Service täglich
05:30 Sat.1-Frühstücksfernsehen
09:30 Mitten im Leben!
09:00 Frauentausch
09:15 Für alle Fälle Amy
09:54 Insel der verlorenen Seelen
09:00 - 11:00
13.10.2009
120 Min
Timer list
Exit EPG
Preview
Record
Category
Search

1)	Colour	Button on the remote control	View
	green	PIP	Currently showing
	yellow	OPT	Programme preview
	red	FAV	Recording schedule
	blue	TV/R	Categories

EPG (Electronic Programme Guide)

Selection options (remote control buttons in the EPG)

- FAV (red) button
  Open the recording schedule (display of all pre-programmed recordings/ reminders)

- ◄◄ ►► button
  Navigation in the individual views (e.g. 15 minutes skip forward in the “Current” view)

- OPT (yellow) button
  Open a preview of the currently selected channel (programme listings)

- TV/R (blue) button
  Open the category selection (sorting the programs by categories such as movies, sport, series ...)

- P+ P- button
  (P+) jump forwards 24 hours in the EPG, (P-) jump backwards 24 hours in the EPG (e.g. in “Current” and in “Preview” view)

- OK button

  Select the currently selected channel in all views. Pressing the OK or

  the BACK button again closes the EPG and the selected channel is shown again on the TV screen

- ● (red dot) button
  Add a programme to the recording settings

- TEXT button
  Search for a particular programme or programme content (e.g. key word search from the detail information) or other programme times (enter the search expression using the number keys on the remote control, see also the section “Operating instructions”, “Alphanumeric entries”)

- i button
  If present, shows further information on the selected programme.

Navigation within each view is always performed using the cursor buttons ( ).

The ▲ ▼ buttons allow you to select individual channels/programmes, and the ◄ ► buttons allow you to scroll from page to page in the currently selected list.

Pressing the EPG or BACK button exits the EPG and returns to the TV picture.

EPG (Electronic Programme Guide)

Views using the EPG

Current View

The “Current” view can be called up at any time in EPG by pressing the PIP (green) button.

In the “Current” view you can see all channels displayed in the order of the overall channel list. Provided that EPG data has been supplied by the channel provider, the receiver shows for each channel the current program being shown, with start time, finish time, and progression bar.

You can use the cursor buttons ( ) or the number keys to select the desired channel and, if available, you can use the i button to open further information on the desired programme.

If you want to view the programme currently being shown on a channel, you need not exit the EPG, just select the desired channel and press the OK button. At the top right of the screen you will see the current TV picture for the selected channel. The picture however only appears once the OK button has been pressed. Previously what you saw was the picture of the old channel that had previously been selected, even though the EPG was no longer set to that channel.

The ► button allows you to look ahead in 15 minute steps to future programmes on the channels (press the ◄ button to return to the current time).

EPG (Electronic Programme Guide)

Preview view (programme listings)

The “Preview” view can be called up at any time in EPG by pressing the OPT (yellow) button.

In the “Preview” view you will see all the programmes that will be shown on the channel previously selected in the “Current” view. Provided that EPG data has been supplied/transmitted by or by the channel provider, the receiver displays the programme lists for two weeks in advance.

You can use the cursor buttons ( ) to select the desired programme and, if available, you can use the i button to display further information on the desired programme.

You can use the ◄◄ ►► buttons to scroll through the programmes in the order of the overall list of programmes (programmes can also be selected by entering digits with the number keys); you remain however in “Preview” mode.

The + − button allows you to scroll backwards and forwards a day at a time.

Using the ● (red dot) button you can copy the selected programme to the recording settings (see “Recording” chapter).

EPG (Electronic Programme Guide)

Categories view

The “Categories” view can be called up at any time in EPG by pressing the TV/R (blue) button.

In the “Categories” view you can see all programmes sorted by category and starting time.

The following categories are available for selection: Movies, Series, Sport, Children’s programs, Chat shows, News, Reportage, Art & Culture, Science & Education, Music, Leisure and Adult programs.

Programmes can be assigned to the above categories only if the EPG data has been supplied by the channel provider.

Select the required category using the ◄◄ ►► buttons.

You can use the cursor buttons (▲▼◄►) to select the desired programme in that category and, if available, you can use the i button to view further information on the desired programme.

The + - button allows you to scroll backwards and forwards a day at a time.

Using the ● (red dot) button you can copy the selected programme to the recording settings (see “Recording” chapter).

Search function

The search function can be called up in EPG at any time by pressing the TEXT button. The following display appears (see screenshot on the right).

The ◄ button allows you to delete your entry.

Search expressions are input using the number keys as described in “General Operating Instructions”, “Alphanumeric entries”.

Pressing the OK button starts the search for your search expression.

You will then see a listing of all programmes that contain your search expression in their detailed information.

You can then use the cursor buttons to select the desired programme from the search result and, if available, you can use the i button to open further information on the desired programme.

Using the ● (red dot) button you can copy the selected programme to the recording settings (see the “Recording Settings” item).

Recording settings (programming the timer)

The ● (red dot) button allows you to set a programme for recording at any time. The programme to be recorded can be selected in any of the EPG views, provided

the ● (red dot) button appears at the bottom of the screen display.

Programme appears in EPG:

Select the desired programme and press

the ● (red dot) button. The following display appears (see example screenshot on the right):

Reminder function

See “Reminder function (switch over to programme)” section in this chapter.

First you must use the ◄► buttons in the “Target” line to select the connected USB storage medium. If the USB storage medium has more than one partition, you can select the chosen one here. Each partition is displayed an a separate USB storage medium. The following display appears (example):

Before each recording, check that there is sufficient storage space on the selected storage medium or partition (see screenshot on the right)!
You should make about 8 GB storage capacity available for one hour's HD recording (depending on the contents of the images transmitted).

Then press the ▲ ▼ buttons to access the “Recording” line.

Use the ◄ ► buttons to select the desired recording mode. The following recording mode options are available:

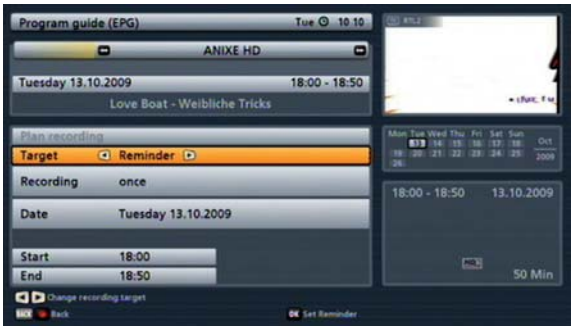
Once	The recording will be performed once
Daily	The recording will be performed daily at the time you specify
Weekly	The recording will be performed once a week on the same day and at the same time
user-defined	The recording will be performed on days specified by you at times specified by you
series recording	The selected programme will be set up by the EPG for recording every time it is broadcast (may even be on different channels). This function however requires that the EPG data is updated daily

Use the cursor buttons (✣) to select the further items and use the number keys to make the settings.

When all settings have been made, press the OK button to save the recording settings. You can view the scheduled recordings in the recording schedule view of the EPG (see “Timer list” chapter).

Programme not in EPG:

Select any programme on the channel on which the desired programme is to be broadcast at a later date, and press the ● (red dot) button. The following display appears (example):



First you must use the ◄ ► buttons in the “Target” line to select the connected USB storage medium. If the USB storage medium has more than one partition, you can select the chosen one here. Each partition is displayed an a separate USB storage medium.

Then press the ▲ ▼ buttons to access the “Recording” line. Use the ◄ ► buttons to select the desired recording mode. The following recording mode options are available: see table above (except series recording).

As there is no EPG data, you must enter the data (date, start, end) manually.

Enter the data using the cursor buttons (✣) or the number keys. When all settings have been made, press the OK button to save the recording settings. You can view the scheduled recordings in the recording schedule view of the EPG (see item “Recording schedule”).

EPG (Electronic Programme Guide)

Recording “once”

Use the ◄ ► buttons to select the “once” recording mode (see screenshot on the right).

Use the ▲ ▼ buttons to switch to the “Date” field and use the ◄ ► buttons to select the desired recording day.

Then use the ▲ ▼ buttons to switch to the selection field “Start” and use the ◄ ► buttons or the number keys to select the desired recording start time.

Then use the ▲ ▼ buttons to switch to the selection field “End” and use the ◄ ► buttons or the number keys to select the desired recording end time.

When all settings have been made, press the OK button to save the recording settings.

Recording “daily”

Use the ◄ ► buttons to select the “daily” recording mode (see screenshot on the right).

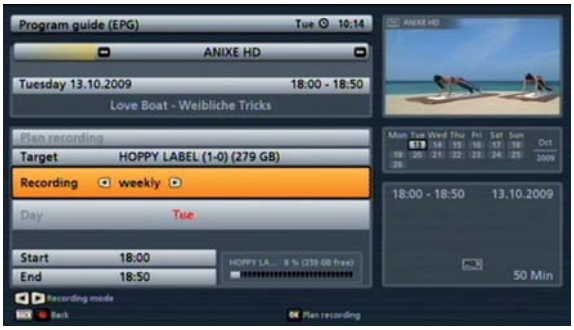
Then use the ▲ ▼ buttons to switch to the selection field “Start” and use the ◄ ► buttons or the number keys to select the desired recording start time.

Then use the ▲ ▼ buttons to switch to the selection field “End” and use the ◄ ► buttons or the number keys to select the desired recording end time.

When all settings have been made, press the OK button to save the recording settings.

Recording “weekly”

Remember that the day of the week for the desired programme is loaded in the recording schedule and you can make no further manual corrections to it! Therefore, before pressing the OK button, select the programme on the day of the week that you will want to make the weekly recording in future.



Use the ◄ ► buttons to select the “weekly” recording mode (see screenshot above). Then use the ▲ ▼ buttons to switch to the selection field “Start” and use the ◄ ► buttons or the number keys to select the desired recording start time. Then use the ▲ ▼ buttons to switch to the selection field “End” and use the ◄ ► buttons or the number keys to select the desired recording end time.

When all settings have been made, press the OK button to save the recording settings.

Recording “user-defined”

Use the ◄ ► buttons to select the “user-defined” recording mode (see screenshot on the right).

Use the ▲ ▼ buttons to switch to the “Day” field and use the ◄ ► buttons to select the required day for the recording.

Press the OK button to fix the selection (the day will be shown in red).

If necessary the receiver will suggest some days to you; you can accept these suggestions or deactivate them using the cursor buttons and pressing the OK button. Then use the ▲ ▼ buttons to switch to

the selection field “Start” and use the ◄ ► buttons or the number keys to select the desired recording start time. Then use the ▲ ▼ buttons to switch to the selection field “End” and use the ◄ ► buttons or the number keys to select the desired recording end time.

When all settings have been made, press the OK button to save the recording settings.

“Series recording”

Use the ◄ ► buttons to select the “Series recording” recording mode (see screenshot on the right).

In series recording the start and finish of recording are taken automatically by the receiver from the EPG data.

Use the ▲ ▼ buttons to switch to the “PreTime” field. Here you can set a lead-in time for this series recording (the time by which the receiver starts recording earlier). The lead-in time can be set using the ◄ ► buttons or the number keys (max. 20 minutes). Use the ▲ ▼ buttons to switch to the “PostTime” field. Here you can set a run-out time for this series recording (the time by which the receiver stops recording later). The run-out time can be set using the ◄ ► buttons or the number keys (max. 20 minutes). Press the OK button to save the recording settings.

Instructions for recording a series:

If every episode of a series is programmed to be recorded using the “Series recording” function, the EPG locates the series in question in the updated schedules and automatically programmes recording of them. A change in the time the series is broadcast is no problem for the EPG, as its programming is based on the series title.
This does, however, mean that the schedule change needs to have been notified prior to the last update of the EPG.

Reminder function (switch over to programme)

If you want to be reminded that a programme is about to start, you can activate the reminder function for the desired programme. The reminder function is set up in exactly the same way as programming a recording. The only difference is that in the “Target” line the entry must be “Reminder”.

Use the ▲▼ buttons to switch to the “Recording” selection field and using the ◄► buttons to select the desired type of reminder (once, daily, weekly, user-defined).

Use the ▲▼ buttons to switch to the “Date” field and use the ◄► buttons to select the desired day.

Then use the ▲▼ buttons to switch to the selection field “Start” and use the ◄► buttons or the number keys to select the desired changeover time.

When all settings have been made, press the OK button to save the reminder settings.

The programme is marked in the programme guide and in the recording schedule view (see screenshot on the right) with a green dot and the receiver will automatically switch over to the pre-selected channel at the start of the programme.

Timer list view

The “Timer list” view can be called up at any time in EPG by pressing the FAV (red) button. The following display appears (example):

The recording schedule view shows you all the recordings and reminders that are scheduled (marked green).

The ◄◄ ►► buttons allow the recordings to be sorted into “Once” or “Repeated” recordings.

The cursor buttons (✣) allow you to select a recording/reminder.

Press the OK button to switch to the channel on which the recording/reminder is scheduled. The + − buttons allows you to skip backwards and forwards through the future scheduled recordings, a day at a time. The ● (red dot) button allows you to edit a recording/reminder that has been scheduled.

You have the following selection options (select with the ▲ ▼ buttons and confirm with the OK button):

<u>Edit options for series recordings:</u>

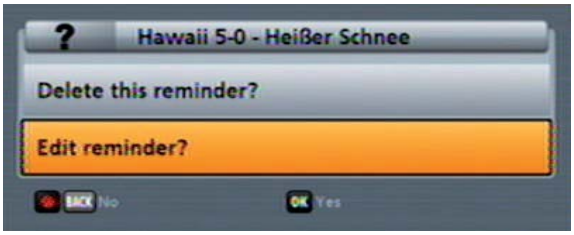
- Only this one selected episode of a series recording will not be recorded
- No further selected episodes of a series recording will be recorded
- Edit the selected recording

<u>Editing options for other types of recording:</u>

- Scheduled recording is deleted
- Edit the scheduled recording

Editing options for the reminder function:

- Reminder is deleted
- Edit the reminder



When editing the target, you can change all parameters apart from the recording mode. Make the changes using the cursor ( ) buttons and the number keys. Press the OK button to confirm your changes, and return to the recording schedule view.

If your programmed recording overlaps with another scheduled recording, the scheduled recording view of the receiver will show the overlapping recordings highlighted in orange. You now have the option of deleting one of the recordings, or to reschedule it so there is no longer an overlap.

If the overlap arises when the recording is input, the receiver notifies you directly of the overlap as soon as you give the “Save” command for the recording.

Editing the channel list

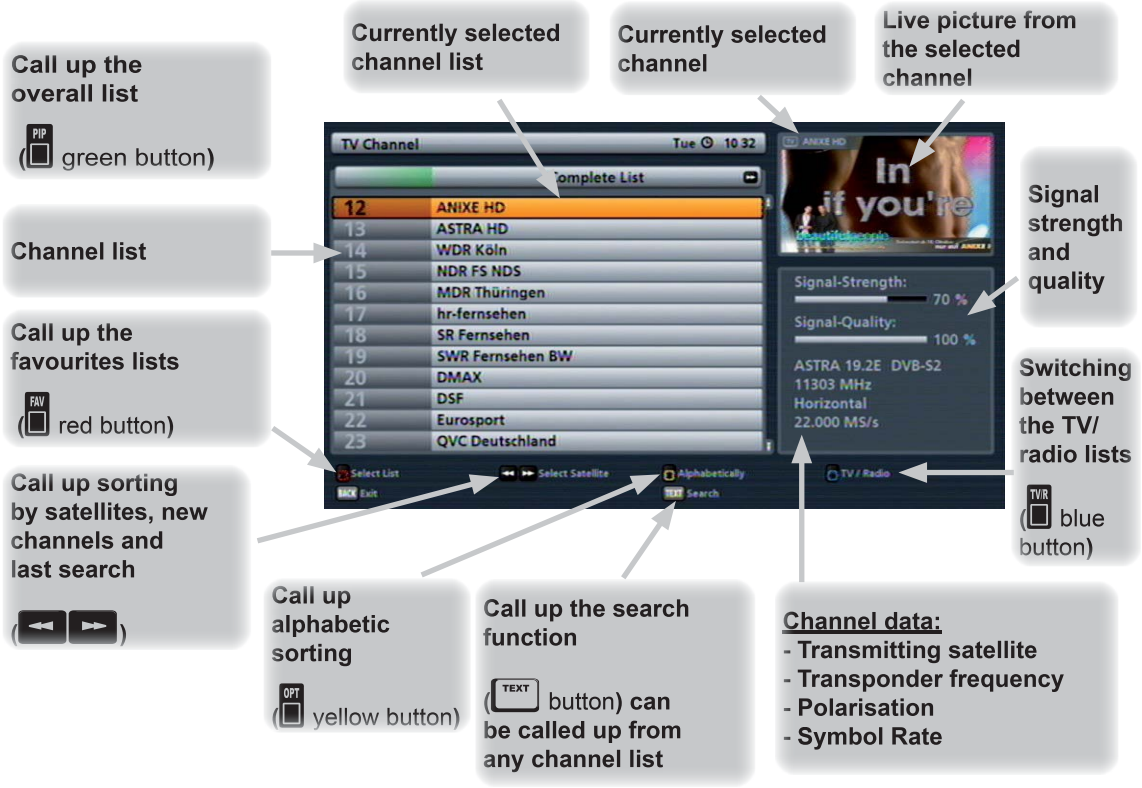
All changes to the channel lists and favourites lists which you can make as described in the following chapter are not saved by the receiver unless, when you exit the menu by pressing the BACK button, you answer "Yes, save changes" to the question "Save changes?", using the OK button. If you give the answer "No, do not save the changes", all the settings/changes you made will be discarded and not saved.

Calling up the "Edit TV Channellist" menu

Select the "Edit TV Channellist" menu using the MENU button, the ▲▼ buttons in the main menu and OK.

Selecting the channel list/favourites list to be edited

Now use the relevant coloured button to select the desired channel list category (refer to the "Basic operation in TV or Radio mode (live operation)", "Channel selection from the channel list" chapters for details). The following display appears (example):



Editing the channel list

Selecting the channels to be edited

Select a channel in the selected channel list/favourites list using the cursor ( ) buttons (see example screenshot on the right).

To select several channels that are listed directly following each other in the selected channel list, you can start block selection (see “Edit channels” “Start Blockselection”).

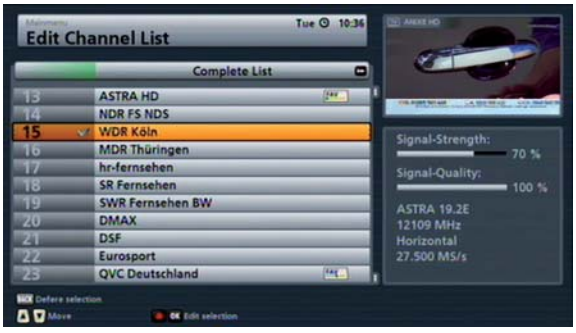
Editing channels (channel lists)

After selection of the channel(s) to be edited, press the ● (red dot) button. The following display appears (see screenshot on the right).

Move

Use the ▲ ▼ buttons to select “Move” and confirm your selection with the OK button.
The following display appears (see example screenshot on the right):

Now use the cursor ( ) buttons or the number keys to select the new channel memory position(s), then confirm the insertion with the OK button.



Editing the channel list

Delete

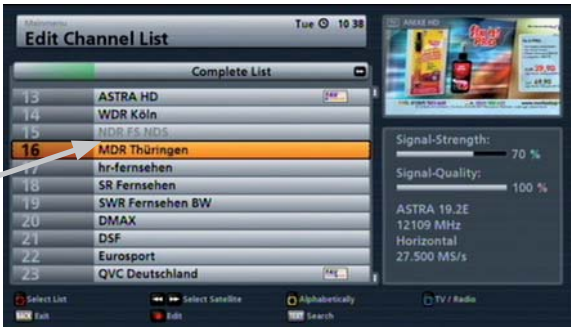
Channels that are deleted from a list other than a favourites list are deleted irrevocably and can only be restored by performing a new channel search.

Deletion of channels from a favourites list is the only circumstance in which the channels remain present in the complete list; the deletion only applies to the selected favourites list.

Use the ▲ ▼ buttons to select “Delete” and confirm your selection with the OK button.
The selected channel(s) will be deleted.

Skip

Use the ▲ ▼ buttons to select “Skip” and confirm your selection with the OK button.
The following display appears (see example screenshot on the right):
The channel that is to be skipped in future is shown in grey in the channel list. If you want to select it in future, you can only do this by direct selection from the channel list. When manually zapping through the channels using the + − buttons, the channel will be skipped and no longer displayed.



This function can be cancelled using the edit menu (select: “Restore to zap list”).

Editing the channel list

Lock

Use the ▲ ▼ buttons to select “Lock” and confirm your selection with the OK button.
To lock the channel you must now enter your four-digit PIN code (factory setting: 0000). The following display appears (see example screenshot on the right):
The locked channel is now displayed in the channel list with a padlock on the right hand side, and in future can only be viewed by inputting the four-digit PIN code (factory setting: 0000).

This function can be cancelled using the edit menu (select: “Unlock”).

To Favorite

Use the ▲ ▼ buttons to select “To Favorite: ***”. Now use the ◄ ► buttons to select the desired favourites list (see example screenshot on the right), into which the channel should be copied.

Confirm your selection with the OK button.

The highlighted channel is copied into your selected Favourites List.

Editing the channel list

Start Blockselection

Use the ▲▼ buttons to select “Start Blockselection” and confirm your selection with the OK button. You can now use the ▲▼ buttons to start block selection in the previously selected channel. This selects the channels in the sequence in which they appear in the previously selected channel list and applies a coloured background to them (see example screenshot on the right):

Then press the ● (red dot) button. You can now carry out all the editing functions channel by channel individually for all the selected channels. Select the desired action (“Move”, “Delete”, “Skip”, “Lock” or “To Favorite”), using the ▲▼ buttons, and confirm your selection with the OK button. You can find an explanation of the individual edit options under “Edit Channel List (channel lists)” in this chapter.

Editing channels (favourites lists)

After selection of the channel(s) to be edited, press the ● (red dot) button. The following display appears (see screenshot on the right).

Remove from Favoritelist

Use the ▲▼ buttons to select “Remove from Favoritelist” and confirm your selection with the OK button.
The selected channel is deleted from the previously selected favourites list, but not from the complete list.

Editing the channel list

Lock

See “Edit channels (channel lists)” “Lock”.

Start Blockselection

See “Edit channels (channel lists)” “Start Blockselection”.

Rename Favourites List

Use the ▲▼ buttons to select “Rename favoritelist” and confirm your selection with the OK button.

You can now rename the favourites list you selected. The following display appears (see example screenshot on the right).

Alphanumeric characters are input as described in “Operating instructions”, “Alphanumeric entries”.

Confirm the name you have entered for the favourites list using the OK button.

Recording archive (play back/edit recordings)

This function can be used only when an external USB storage medium (such as an external hard disk with USB connection) is connected and is formatted in the format “FAT” or “FAT32”.

Call up the recording archive

The recording archive is called up by pressing the ARCHIVE button or the ► button. When this view is called up, it is automatically displayed in the “Ordered by date” view. The following display appears (example):

In this “Coming up window”, you are always shown the current programme on the last channel to be selected, with the channel name.
After the start of playback of a recording, instead of the channel name you are shown the title of the recording being played back.

Selected view/sorting the recording archive

List of the available recordings, ordered as described above

Statement of the remaining memory capacity of the connected hard disk

Date and time of the selected recording with category, duration and picture format

At this point you will be shown any age restrictions for the highlighted programme, if this is supplied by the channel provider

	Colour	Button on the remote control	View
	green	PIP	sorts by date, title or duration
	yellow	OPT	sorts by channel
	red	FAV	switches to the recording list (EPG)
	blue	TV/R	sorts by category

Recording archive (play back/edit recordings)

Selection options (remote control buttons in the recording archive)

- FAV (red) button
  Calling up the recording list (EPG)
- PIP (green) button
  Call up ordering of recordings (ordered by date, ordered by title and ordered by duration)
- OPT (yellow) button
  Display the recordings by channel
- TV/R (blue) button
  Display the recordings by categories (e.g. movies, news, sport, series ...)
- ◄◄ ►► buttons
  Changes to the sorting in each selected category
- OK button
  The first press starts playback of the last item in the “Preview window”. If the button is pressed again, the playback is continued in full-screen mode
- ► button
  Starts playback of the selected recording from beginning in full-screen mode
- ● (red dot) button
  Call up the edit menu
- TEXT button
  Search for a particular recording or programme content (e.g. key word search from the detail information) or other recordings of this programme (enter the search expression using the number keys on the remote control, see also the section “Operating instructions”, “Alphanumeric entries”)
- i button
  If available, shows further information on the selected recording.

Recording archive (play back/edit recordings)

Navigation within each view of the recording archive is always performed using the cursor buttons ( ).

The ▲ ▼ buttons allow you to select individual recordings, and the ◄ ► buttons allow you to scroll from page to page in the currently selected list.

Pressing the ARCHIVE or the BACK button exits the recording archive and returns to the TV picture.

Views of the recording archive (sorting the recordings)

When displaying the recordings you have the following sorting / display options:

PIP (green) button Ordered by date (you can use the ◄◄ ►► buttons to choose between the sorting criteria of date, title or duration (recording length))

OPT (yellow) button Ordered by channels (you can choose between the available channels using the ◄◄ ►► buttons). Only those channels for which a recording is available are shown

Recording archive (play back/edit recordings)

TV/R (blue) button Ordered by categories/genres (you can choose between the available categories using the ◄◄ ►► buttons). Only those categories for which a recording is available are shown

FAV (red) button Recording list (see section “EPG”, item “Timer list view”)

Recording archive (play back/edit recordings)

Playback of a recording

Use the ▲ ▼ buttons to select the desired recording. Confirm selection of the desired recording by pressing the OK button. Pressing the OK button again exits the recording archive and allows the desired recording to be viewed in full-screen mode. The playback starts at the last playback position.

If playback is started by pressing the ► button, playback of the recording starts from the beginning and in full-screen mode.

Playback functions

During playback of a recording you have the following options:

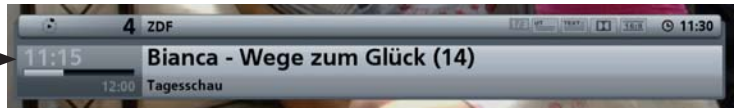
⏸	Pause button	This stops playback; playback can be resumed either by pressing the pause button again or by pressing the play button	
i	Info button	1 x	Displays the channel information with the title of the programme being recorded (see screenshot next page). To hide the playback info again, press the i button twice
		2 x	This displays the info text recorded with the programme. To hide the info text again, press the i button again.
⏩	Fast forward button	Available fast forward speeds: 2, 4, 8, 16, 32 and 64 times. Each time the fast forward button is pressed, the fast forward speed increases another step. Pressing the rewind button reduces the fast forward speed step by step. Press the “Play” button to return to the normal playback speed	
⏪	Rewind button	Available rewind speeds: 2, 4, 8, 16, 32 and 64 times. Each time the rewind button is pressed, the rewind speed increases another step. Pressing the fast forward button reduces the rewind speed step by step. Press the “Play” button to return to the normal playback speed	
►	Play button	Pressing the “Play” button reverts from fast forward/rewind mode or from pause mode to normal playback and/or shows / hides the progress bar	
■	Stop button	This stops playback or fast forward/rewind; the receiver automatically returns to the recording archive	
▲	Cursor button (up arrow)	Each time the cursor button (up arrow) is pressed, the playback point in the recording skips 9% or 10% forwards	
▼	Cursor button (down arrow)	Each time the cursor button (down arrow) is pressed, the playback point in the recording skips 9% or 10% backwards	
►	Cursor button (right arrow)	Each time the cursor button (right arrow) is pressed, the playback point in the recording skips 30 seconds forwards	
◄	Cursor button (left arrow)	Each time the cursor button (left arrow) is pressed, the playback point in the recording skips 30 seconds backwards	

Recording archive (play back/edit recordings)

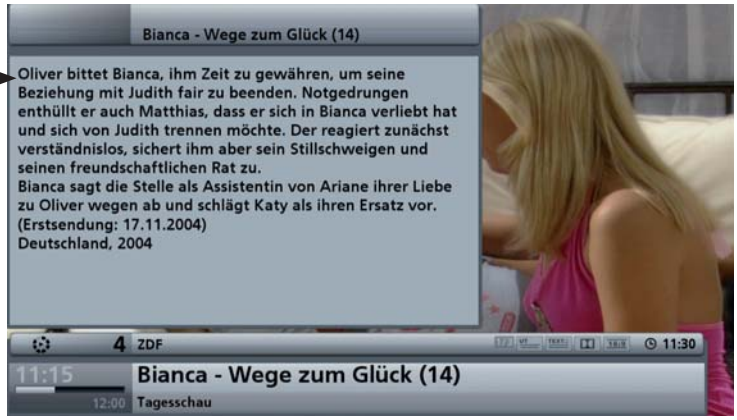
You will see this display during all types of wind on/ rewind or by pressing the

or button

Pressing the button once calls up this display



Pressing the button twice calls up this display


Bianca - Wege zum Glück (14)
Oliver bittet Bianca, ihm Zeit zu gewähren, um seine Beziehung mit Judith fair zu beenden. Notgedrungen enthüllt er auch Matthias, dass er sich in Bianca verliebt hat und sich von Judith trennen möchte. Der reagiert zunächst verständnislos, sichert ihm aber sein Stillschweigen und seinen freundschaftlichen Rat zu.
Bianca sagt die Stelle als Assistentin von Ariane ihrer Liebe zu Oliver wegen ab und schlägt Katy als ihren Ersatz vor.
(Erstsendung: 17.11.2004)
Deutschland, 2004
4 ZDF
11:30
11:15
Bianca - Wege zum Glück (14)
12:00
Tagesschau

Recording archive (play back/edit recordings)

Selecting the recordings to be edited

To select a recording, select the desired recording in the selected sort list, using the cursor ( ) buttons (see example screenshot on the right).

Editing recordings

After selection of the recording(s) to be edited, press the ● (red dot) button. The following display appears (see screenshots on the right):

Delete

Deleted recordings are irrevocably deleted and can only be restored by re-recording the programme!

Use the ▲ ▼ buttons to select “Delete” and confirm your selection with the OK button.
The highlighted recording is deleted.

Recording archive (play back/edit recordings)

Lock

Use the ▲ ▼ buttons to select “Lock” and confirm your selection with the OK button. In order to activate the lock you must input your four-digit PIN code (factory setting: 0000).
The following display appears (see example screenshot on the right):

The locked recording is displayed in the recording archive with a padlock on the right hand side, and in future can only be viewed by inputting the four-digit PIN code (factory setting: 0000).

This function can be cancelled using the edit menu (select: “Unlock”).

Rename

Use the ▲ ▼ buttons to select “Rename” and confirm your selection with the OK button.

You can now rename your selected recording. The following display appears (see example screenshot on the right).

Alphanumeric characters are input as described in “Operating instructions”, “Alphanumeric entries”.
Confirm the name you have entered for the favourites list using the OK button.

Change category

Use the ▲ ▼ buttons to select “Change category” (see example screenshot on the right). Now use the ◄ ► buttons to select the desired category to which the recording should be assigned. Confirm your selection with the OK button.

Calling up the main menu and introduction

The main menu is opened by pressing the MENU button. The following display appears:

The programme showing on the currently selected channel always appears in the top right-hand corner of the main menu.

The selected menus, sub-menus and items, as well as the parameters to be set, are each marked in colour.

Always pay attention to the bar at the bottom of the on-screen display. This provides information about the next action/edit step.

The submenus are selected using the ▲▼ buttons and called up using the OK button. Use the ▲▼ buttons also to select the sub-menu items. The settings of the various parameters in the individual items are performed using the ◄► buttons or the number keys.

The main menu and submenus can be exited step-by-step using the BACK button. Press the MENU button to return directly from one of the menus to the TV picture.

Menu overview

Main Menu (call up by pressing the MENU button)					
Edit Channel List	**Channel search**	**Parental Control**	**Settings**	**Service Menu**	**Language Setting**
(see section Edit channel list)	**Automatic Channel Search**	**Locking Mainmenu**	**First Installation** (see the section “Connection and Set-Up”, “First installation”)	**Software Update**	
	Manual Channel Search	**Lock Set-Top-Box**	**TV, Video and Audio**	**Factory Reset**	
	Search with service ID	**Define new PIN Code**	**Customize Screen Menu**	**USB Device Management**	
			Date and Time	**Activate sleep timer**	
			Common Interface	**Display: current software issue and channel list issue, date of last update**	
			Antenna Configuration		

Main menu - Channel search

After calling up the menu you will see the following display:

You have three different search options:

- Automatic Channel Search
- Manual Channel Search
- Search with service ID

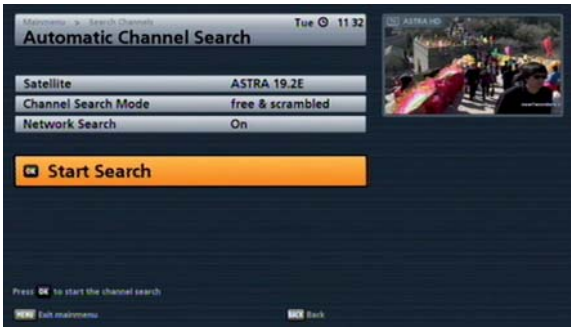
Use the ▲▼ buttons to select the desired search type and confirm your selection using the OK button.

Automatic Channel Search	All transponders for the satellite you selected will be searched
Manual Channel Search	Only the selected transponder for the satellite you selected will be searched
Search with service ID	Search for a specific channel using its service ID

Automatic Channel Search

After calling up the menu you will see the following display:

The ▲▼ buttons allow you to select different sets of parameters for the search.



Satellite

Using the ◄► buttons, select the satellite to be searched. Make sure your reception system is aligned to the selected satellite. You can search only one satellite at a time. If you have connected a multi-feed reception system (e.g. reception of ASTRA 19.2° East and HOTBIRD 13° East), you must repeat this procedure once for each satellite.

You can however start the first installation again, in the course of which a channel search of all the satellites you selected is performed.

Channel Search Mode

Use the ◄► buttons to select the type of channels that are to be searched for. You have three options:

- “free & scrambled” All channels are searched for
- “only free” Only free-to-air channels are searched for
- “only scrambled” Only encrypted channels are searched for

To view encrypted channels you need an appropriate CA (Conditional Access) module and a valid smart card together with a valid subscription to the relevant Pay TV provider.

Network search

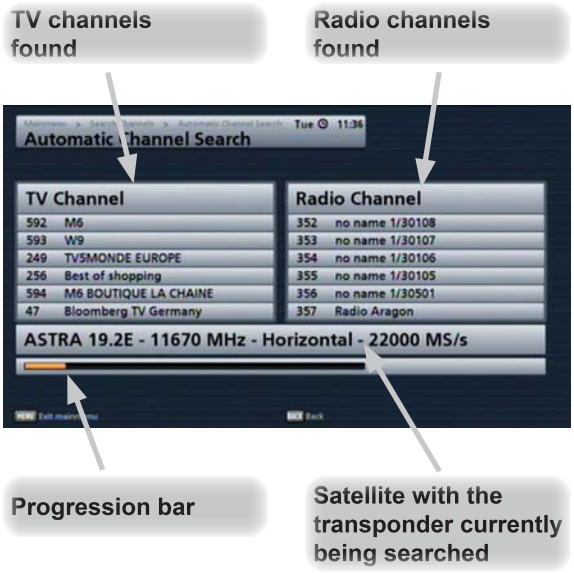
Use the ◄ ► buttons (On/Off) to select whether a network search should be performed. If you set the network search to “Off”, only the factory default transponders for the satellite(s) you previously selected will be searched for new as yet unsaved channels. If you set the network search to “On”, the transponder network enables additional transponders that have not yet been stored to be located. They are then stored and searched for new channels in the same way as the existing transponders.

Then use the ▲ ▼ buttons to switch to the field “Start Search”. Pressing the OK button starts the search.

During the search you will see the following display (example):

The newly found channels are identified with the suffix “New” (see example screenshot on the right).

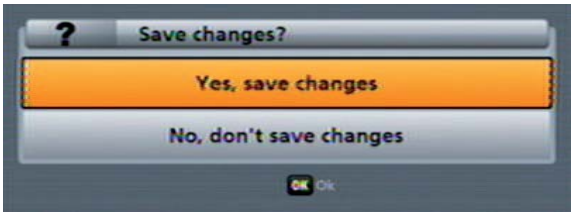
Note:
You can cancel the search at any time by pressing the BACK button.



After completion of the search, you will see the following display (example):

Press the OK button.

Automatic Channel Search
TV Channel
Radio Channel
Information
New TV Channels : 3
New Radio Channels : 0
ASTRA 19.2E - 12728 MHz - Vertical - 22000 MS/s



You will be asked whether you wish to save the changes or not. Use the ▲▼ buttons to make the selection and confirm with the OK button. If you select “Yes, save changes”, the newly found channels will be added to the end of the channel list. Then press the BACK button to exit the menu. The channel list is called up on to the TV screen by pressing the OK button (see also the sections “Basic operation in TV or Radio mode”, “On-Screen Displays”, “Channel List TV/Radio”).

After a search (of whatever type) the receiver shows all newly found channels in the channel list under the rubric “New Channels”.
You will find this rubric in the channel list at the end of the green overall list (select using the ◄► buttons).

Manual Channel Search

After calling up the menu you will see the following display:

The ▲▼ buttons allow you to select different sets of parameters for the search.

In this menu you can selective search for a frequency range for the new channels.

Satellite

Use the ◄► buttons to select the satellite on which the transponder you want to search is located. Make sure your reception system is aligned to the selected satellite. You can only search one transponder at a time. If you want to search several transponders on a satellite, you should start an automatic search of the transmitting satellite.

Transponder Frequency

Use the ◄ ► buttons (transponder frequency already saved) or the number keys (transponder frequency not yet saved) to select the transponder frequency on which the channel being sought is broadcast.

The selection items: DVB Type, FEC, Polarisation and Symbol Rate need be entered only if the transponder has yet to be saved.

DVB type

Press the ◄ ► buttons to select whether the search should be for standard channels (DVB-S (SD)) or for HDTV channels (DVB-S2 (HDTV)).

Modulation

Use the ◄ ► buttons to select the appropriate type of modulation. There is no need to input the type of modulation when searching for standard channels. Instead a fixed display of “Automatic” appears. When searching for HDTV channels you must enter the correct type of modulation (either QPSK or 8PSK).

Polarisation

Press the ◄ ► buttons to select the correct polarisation (horizontal or vertical).

Symbol Rate

Use the number keys to enter the related symbol rate.

Channel Search Mode

Use the ◄ ► buttons to select whether you wish to search “free & scrambled”, ”only free” or “only scrambled” channels.

To view encrypted channels you need an appropriate CA (Conditional Access) module and a valid smart card together with a valid subscription to the relevant Pay TV provider.

Network Search

Use the ◄ ► buttons (On/Off) to select whether a network search should be performed. If you set the network search to “Off”, only the factory default transponders for the satellite(s) you previously selected will be searched for new as yet unsaved channels. If you set the network search to “On”, the transponder network enables additional transponders that have not yet been stored to be located. They are then stored and searched for new channels in the same way as the existing transponders.

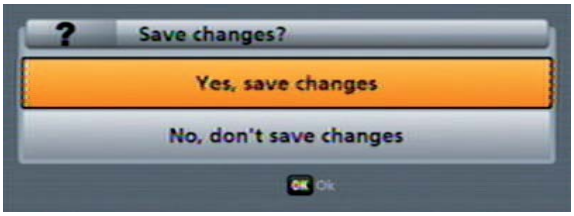
Then use the ▲ ▼ buttons to switch to the field “Start search”. Pressing the OK button starts the search.

Note:
You can cancel the search at any time by pressing the BACK *button.*

After completion of the search, you will see the following display (example):

Manual Channel Search
TV Channel
Radio Channel
Information
New TV Channels : 0
New Radio Channels : 0
ASTRA 19.2E - 12728 MHz - Vertical - 22000 MS/s

Press the OK button.



You will be asked whether you wish to save the changes or not. Use the ▲ ▼ buttons to make the selection and confirm with the OK button. If you select “Yes, save changes”, the newly found channels will be added to the end of the channel list. Then press the BACK button to exit the menu. The channel list is called up on to the TV screen by pressing the OK button (see also the sections “Basic operation in TV or Radio mode”, “On-Screen Displays”, “Channel List TV/Radio”).

After a search (of whatever type) the receiver shows all newly found channels in the channel list under the rubric “New Channels”.
You will find this rubric in the channel list at the end of the green overall list (select using the ◄◄ ►► buttons).

Search with service ID

After calling up the menu you will see the following display:

The ▲▼ buttons allow you to select different sets of parameters for the search.

Satellite

Use the ◄► buttons to select the satellite that is transmitting the channels to be searched. Make sure your reception system is aligned to the selected satellite.

Transponder Frequency

Use the ◄► buttons (transponder frequency already saved) or the number keys (transponder frequency not yet saved) to select the transponder frequency on which the channel being sought is broadcast.

DVB type

Use the ◄► buttons to select whether the search should be for standard channels (DVB-S (SD)) or for HDTV channels (DVB-S2 (HDTV)).

Modulation

Use the ◄► buttons to select the appropriate type of modulation. There is no need to input the type of modulation when searching for standard channels. Instead a fixed display of “Automatic” appears. When searching for HDTV channels you must enter the correct type of modulation (either QPSK or 8PSK).

Polarisation

Press the ◄► buttons to select the correct polarisation (horizontal or vertical).

Symbol Rate

Use the number keys to enter the related symbol rate.

Service ID

Use the ◄► buttons or the number keys to enter the service ID of the channel to be searched for.

Then use the ▲ ▼ buttons to switch to the field “Start search”. Pressing the OK button starts the search.

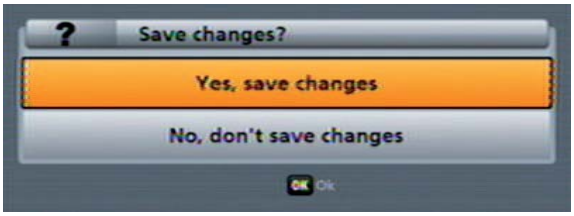
Note:

You can cancel the search at any time by pressing the BACK button.

After completion of the search, you will see the following display (example):

Search with Service ID
TV Channel
Radio Channel
Information
New TV Channels : 0
New Radio Channels : 0
ASTRA 19.2E - 12728 MHz - Vertical - 22000 MS/s

Press the OK button.

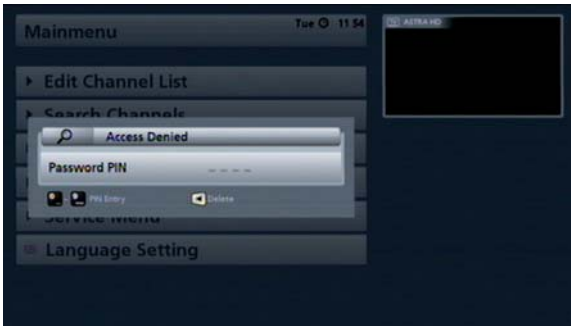


You will be asked whether you wish to save the changes or not. Use the ▲ ▼ buttons to make the selection and confirm with the OK button. If you select “Yes, save changes”, the newly found channels will be added to the end of the channel list. Then press the BACK button to exit the menu. The channel list is called up on to the TV screen by pressing the OK button (see also the sections “Basic operation in TV or Radio mode”, “On-Screen Displays”, “Channel List TV/Radio”).

After a search (of whatever type) the receiver shows all newly found channels in the channel list under the rubric “New Channels”.
You will find this rubric in the channel list at the end of the green overall list (select using the ◄◄ ►► buttons).

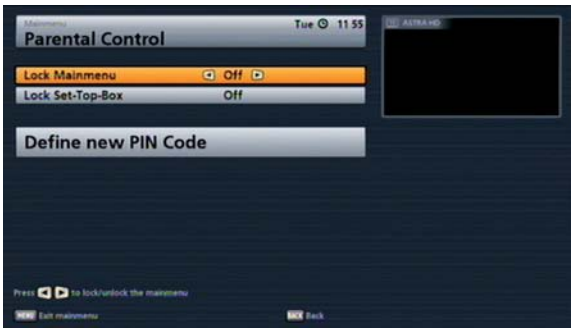
Main menu - Parental control

After calling up the menu you will see the following display:



In order to access this menu, you must input the four-digit PIN code (factory setting: “0000”).

The following display then appears:



In this menu you can set various restrictions/parental controls.
The individual items are selected using the ▲ ▼ buttons. The changes to the current settings can be performed using the ◄ ► buttons or the number keys.

Lock Mainmenu

Select here whether the main menu should be locked. If the main menu is locked, the four-digit PIN code will be requested when it is called up. Without the four-digit PIN code (factory setting: “0000”), the main menu cannot be viewed and no changes can be made to the device settings. Either

- On or
- Off

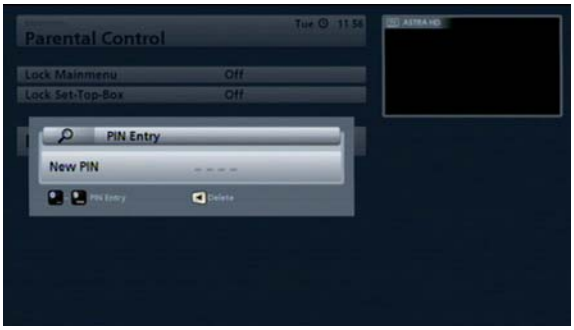
Lock Set-Top-Box

Select here whether the receiver should be locked. If the receiver is locked, the four-digit PIN code will be requested when it is switched on. Without the four-digit PIN code (factory setting: “0000”), the receiver cannot be operated. Either

- On or
- Off

Define new PIN Code

Confirm the selection with the OK button. The following display appears:

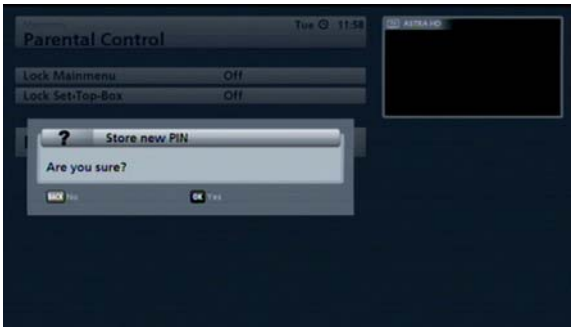


Use the number keys to input your new four-digit PIN code.

When the fourth digit has been input, the receiver will automatically skip to the next line “Confirm PIN code”. For security you must now repeat the input of the four-digit PIN code.

To save the PIN code, now press the OK button.

Your receiver PIN code has now been changed.



Keep your four-digit PIN code in a safe place, so that you always have access to your channels should you ever forget it.

If you have forgotten your password, you must contact your dealer, who will be able to unlock your receiver for you.

Main menu - Settings

After calling up the menu you will see the following display:

Use the ▲▼ buttons to select the desired menu and confirm your selection using the OK button.

First Installation

See the section “Connection and Set-Up”, “First installation”.

TV, Video and Audio

After calling up the menu you will see the following display:

The individual items are selected using the ▲▼ buttons. The changes to the current settings can be performed using the ◄► buttons or the number keys.

Use the buttons here to select the settings for your TV set.

When doing this, refer to the operating instructions for your TV set!

Video Output via
Select here the connection on the receiver to which you have connected your television.

Either:

SCART or HDMI

TV aspect ratio
Here you select the TV's picture format. Either

- 4:3 or
- 16:9

Picture format
Here you select the type of screen display, depending on the setting of your TV format:

- Pan & Scan
- Letterbox
- Automatically (only if the “16:9” TV format was selected)
- Always 16:9 (only if the “16:9” TV format was selected)

TV-SCART-Output
Select the type of video signal at the TV Scart socket here. Select the signal that your TV set can process.

- FBAS – Composite Colour Baseband Signal
- RGB – Red/Green/Blue signal or
- Y/C – S-Video signal (luminance/ chrominance)

TV, Video and Audio
Mon 10 23
Video Output via HDMI
HDMI Format 1080i
Show 4 : 3 event zoom in (Pan & Scan)
Audio format via HDMI S/PDIF format
TV standby via HDMI Off
Auto Dolby Digital output Off
Audio Delay 100 ms
Subtitle Off

HDMI Format
Here you can select the picture resolution that will be sent to your TV set. Either

- 1080i (resolution 1920 x 1080, half-screen images)
- 576p (resolution 720 x 576, full-screen images)
- 720p (resolution 1280 x 720, full-screen images) or
- automatically

Show 4:3 event
Here you can select the type of screen display mode for 4:3 broadcasts on a 16:9 TV set:

- normal (Pillarbox)
- stretched (Full screen)
- zoom in (Pan & Scan)

By pressing the PIP *(green) button once or twice you can also call up the settings for “Show 4:3 event” and for “HDMI Format” whilst viewing.*

Audio format via HDMI
Here you can select the type of audio signal that is transmitted by the HDMI interface. Select the signal that your TV set can process.

- Decoded PCM
- S/PDIF format

Auto Dolby Digital output
Here you can select whether the receiver should automatically output the Dolby Digital signal (if this is transmitted).

Audio delay (currently unavailable)
Here you can set a delay in milliseconds, if the sound output from your receiver is out of synch with the TV picture (lip synchronicity). The delay can be set in 10 millisecond steps from 10 ms up to 200 ms.

Subtitle
Here you can select whether the receiver should automatically output the subtitles (if these are transmitted).

Customize Screen Menu

After calling up the menu you will see the following display:

The individual items are selected using the ▲ ▼ buttons. The changes to the current settings can be performed using the ◄ ► buttons or the number keys.

Scope of functions
Here you can configure the functional scope of your receiver. You can choose between “High”, “Normal” and “Low”. The table below shows which functions are available at each configuration step.

	FAV (red) button	PIP (green) button	OPT (yellow) button	TV/R (blue) button	OK button	◄ ► button	■■ button	● button
High	Favourites selection	Picture format	Options selection	Media selection	Channel list	Archive*	Time-shift*	Record*
Low	Not assigned	Not assigned	Not assigned	Not assigned	Programme Guide	Archive*	Not assigned	Record*
Normal	Favourites selection	Picture format	Options selection	Media selection	Programme Guide	Archive*	Time-shift*	Record*

* These functions can be used only if an external USB storage medium is connected at the rear of the receiver. For this see also “Connection and Setup”, “Connecting the receiver”, “USB port”.

Display duration of channel message

Use the ◄ ► buttons to select the time after which you want the on-screen channel message display to be automatically cancelled. The selections available are “Off”, 1, 2, 3, 4, 5 or 6 seconds.

Display volume bar

Use the ◄ ► buttons (On/Off) to specify whether the volume bar is displayed when adjusting the volume.

Front display brightness

Use the ◄► buttons to set the brightness of the receiver front display. Select the most comfortable setting for the ambient lighting.

Loopthrough in standby

Use the ◄► buttons (On/Off), to select whether the satellite signal present at the input to the receiver (IF input) should be looped through to the output from the receiver (IF output) when the receiver is in standby mode.

Time display

Use the ◄► buttons (On/Off), to select whether the time is displayed at the front of the receiver whilst it is in operation.

Date and Time

After calling up the menu you will see the following display:

The individual items are selected using the ▲▼ buttons. The changes to the current settings can be performed using the ◄► buttons or the number keys.

Local time offset (UTC)

Use the ◄► buttons to set the time zone variation from UTC (formerly GMT) (e.g. for Germany +1 hour).

Use the ▲▼ buttons to switch to the “Automatic clock change” field.

Automatic clock change

Use the ◄► buttons to select whether the receiver should automatically change over to and from summer and winter time. If “On” is selected, the receiver automatically sets itself to the right time. If you select the setting “Off”, you will have to manually adjust the offset from UTC in the “Local time offset” field when changing over between summer time and winter time.

update time on

Use the ◄► buttons here to select the channel from which the receiver will take the time information. Either:

all Channels: The time information is taken from whatever channel is being viewed or
current Channel: The channel currently being viewed is specified as the supplier of time information.

Common Interface

Important Information

Always follow the operating instructions from your Pay-TV provider and the instructions supplied with the Smartcard and the CA module!

Smartcards and CA modules are not included with this product!

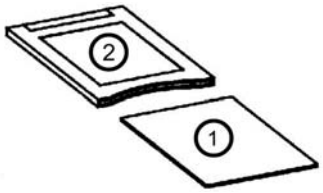
The cards and modules are issued by the respective pay TV providers, and contain the subscriber data and details of the channels for which the subscriber has paid. These channels are always scrambled.
Contact the Pay TV provider if you are interested in subscribing to a particular Pay TV channel.

You are responsible for the use of the Smartcard in the CA!

The Smartcard sold by the pay TV provider, specific to a particular encryption technology, is inserted into the CA module.

Store your card and PIN code securely when not in use!

Inserting the Smartcard and the CA Module



Inserting the CA module into the CI

The Common Interface (CI) (3) of the UFS 903 is suitable for insertion of a CA (Conditional Access) module and is located at the right of the front panel of the receiver (behind the flap). The CA module (2) draws in the Smartcard (1) (chip contacts pointing downwards and towards socket strip) which it then inserts into the CI slot (3). The Smartcard should be inserted into the CA module without exerting excessive force. This also applies to inserting the CA module into the CI slot.

Do not use a lot of force and follow the instructions supplied with the Smartcard and the CA module. To remove the CA module, press the relevant eject button (4).

Main menu - Settings

You can find out from the “Main menu” under “Settings”, and the “Common Interface” menu which Conditional Access module is in the CI slot on the UFS 903 and which Smartcard is in which CA module.

Confirmation is by pressing the OK button.

The screenshots below depend on the specific module and card, and so are only intended as examples:

Press the OK button to access the menu generated by the CA module:

From this menu, your card and your PIN code allow you to access various channels from your Pay-TV provider.
“CryptoWorks” has been selected as an example here. The details can be different for each CA module. Always follow the instructions supplied by your pay TV provider!

Note: *The module displays may be shown in English, even if you have selected German as the menu language, because the menu is generated directly by the module!*

Information for Conax, SECA, Viaccess and CryptoWorks users:
Note that with monthly activation intervals, the channel providers have different procedures for activating pay TV cards. Activation may therefore be a few days before or after the beginning of a new month. During this activation period, the CA module and card must be in the slot, and the receiver must be turned on a set to the booked Pay TV channel.
Follow the instructions from the pay TV provider.

If your pay TV card is then still not enabled, we recommend you briefly withdraw the CA module with the card out of the slot, with the receiver switched on, and then re-insert it.

This information has nothing to do with the properties of the receiver; it is merely intended to assist you.

Antenna Configuration

See the section “Connection and Set-Up”, “First installation”.

Main menu - Service menu

After calling up the menu you will see the following display:

You can choose between various different menus:

- Software update
- Factory Reset
- USB Device Management
- Activate sleep timer

In addition, the following additional information is displayed in the service menu under the “Activate sleep timer” option:

- Operating software version currently in use on the receiver
- Date of the last update of the channel list
- Date of the last update of the receiver operating software

Use the ▲ ▼ buttons to select the desired menu and confirm your selection using the OK button.

Software update

After calling up the menu you will see the following display:

The individual items are selected using the ▲ ▼ buttons and called up using the OK button.

Software Update over air

After calling up the menu you will see the following display:

The receiver searches for available updates.

The search for available updates may take a few minutes.

The following display then appears (example):

Software Update over air
Update Software No
Channel List no download
New software available: V1.01
Date of the channel list: 02.10.2009

Update Software

If new software is available (but only then), use the ◄► buttons (No/Yes) to select whether you wish to load the new software that is available. If you are unsure whether you wish to load the new software, you can initially set the reply to “No”. If you do agree to the changes, you can then proceed to download the software.

Channel List

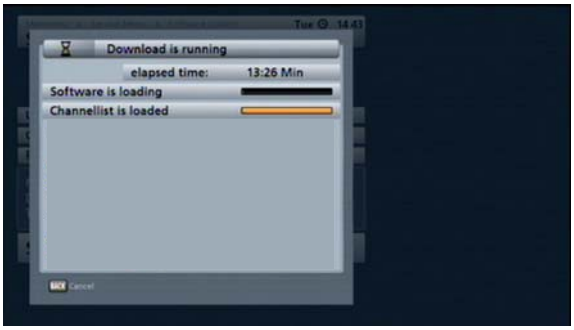
If a new channel list is available (but only then), use the ◄► buttons (Do not load/overwrite) to select whether you wish to load the new channel list that is available and overwrite the old channel list.

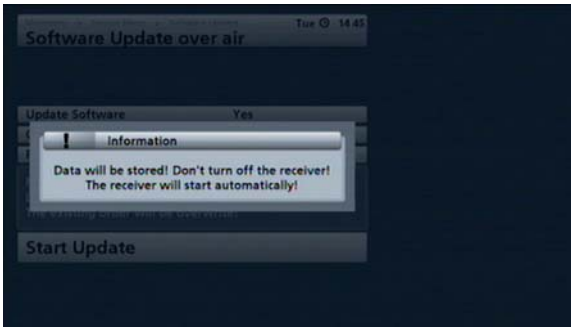
Pre-sorted for (appears only if “Overwrite channel list” was selected)

Use the ◄► buttons to select the country for which you would like the new list to be pre-sorted.

When you have made your settings, use the ▲▼ buttons to select “Start Update” and press the OK button to start updating.

The following display appears (example):




Software Update over air
Update Software Yes
Information
Data will be stored! Don't turn off the receiver!
The receiver will start automatically!
Start Update

The download of the software and of any channel lists may take up to an hour.

Use the ▲ ▼ buttons to select from the displayed options and press OK button to confirm your selection:

- “Load in standby”: When the receiver is switched to “Standby” mode the new software is loaded
- “Remind me later”: The message reappears the next time the receiver is started up
- “Don’t load”: The software will not be loaded.

Software updating via the USB port

A pre-requirement for the updating via a USB device is an empty USB device (such as a USB stick), formatted as FAT32, containing only the operating software or channel list to be loaded.

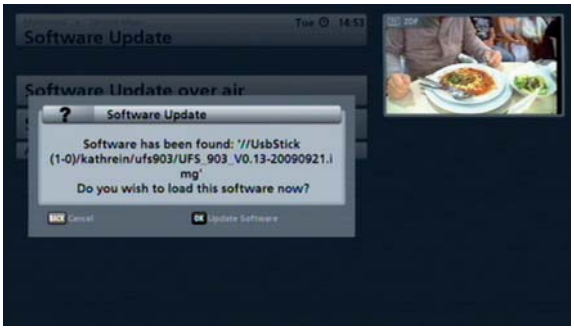
It is essential that the operating software to be loaded is stored on the USB device under the following directory structure:
Main folder: kathrein
Subfolder: ∟ ufs903

It is essential that the channel list to be loaded is stored on the USB device under the following directory structure:
Main folder: kathrein
Subfolder: ∟ channellist

You can also download the updates from the Internet. The address is: http://www.kathrein.de
You will find the software at "Service" → "Software and Download" → "Receiver" → "UFS 903"

Press the OK button to start updating via the USB.

The following display appears (example):


Software Update
Software Update over air
Software Update
Software has been found: '//UsbStick (1-0)/kathrein/ufs903/UFS_903_V0.13-20090921.img'
Do you wish to load this software now?

Software Update
Software Update over air
Information
The new software is being loaded. Do not switch the receiver off! After the new software has been loaded, the receiver will be restarted automatically.

Auto Software update

Use the ◄ ► buttons to select the desired setting (Yes/No).

Setting “No”
The receiver does not search automatically every day for newly available software or channel lists when performing the EPG data update. You can however perform a software update manually at any time, as described in this section under “Software updating”.

Setting “Yes”
The receiver searches automatically every day for newly available software or channel lists when performing the EPG data update.

Note: *The receiver does not make the changes automatically without your approval, they are buffered until the next time the receiver is started.*

If new software is found, you will see the following display when next you start the UFS 903:

Use the ▲ ▼ buttons to select from the displayed options and press OK button to confirm your selection:

- “Load in standby”: When the receiver is switched to “Standby” mode the new software is loaded
- “Remind me later”: The message reappears the next time the receiver is started up
- “Don’t load”: The software will not be loaded.

Factory Reset

After calling up the menu you will see the following display:

You can here restore the channel list and the installation settings to the factory settings.

Confirm the start by pressing the OK button. All settings will be reset to the status at the delivery of the unit.

USB Device Management

After calling up the menu you will see the following display:

The individual items are selected using the ▲▼ buttons. The changes to the current settings can be performed using the ◄► buttons or the number keys.

Use the ◄► buttons in this line to select the desired action that you then wish to perform. The following options are available:

- Manage data carrier
- Manage channel list

Manage data carrier

Use the ▲▼ buttons to switch to the “USB data carrier” line. If several data carriers are connected to the receiver, you can use the ◄► buttons here to select the data carrier to be formatted or checked.

Formatting

When a partitioned USB storage medium is formatted, all the data saved on the storage medium, and all the partitions, are deleted and the entire hard disk is formatted with a single “FAT32” partition. The storage capacity of the USB storage medium to be formatted must not exceed two terabytes.

Use the buttons to switch to the “Formatting” line. Pressing the OK button starts the formatting. The following display appears:

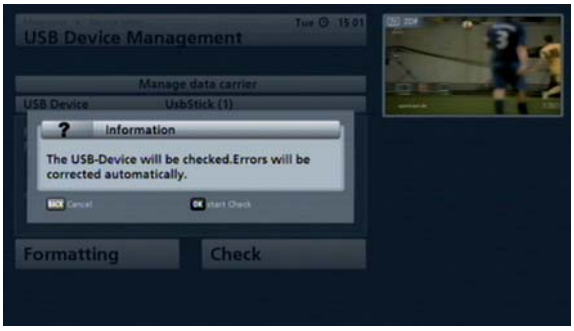
Formatting may take a few minutes.

Confirm with the OK button. The formatting is being performed. On completion of the formatting the receiver restarts and you can use the external USB storage medium for recording with the UFS 903.

Check

Use the buttons to switch to the “Check” line. Pressing the OK button starts the checking. The following display appears:

Checking may take a few minutes.



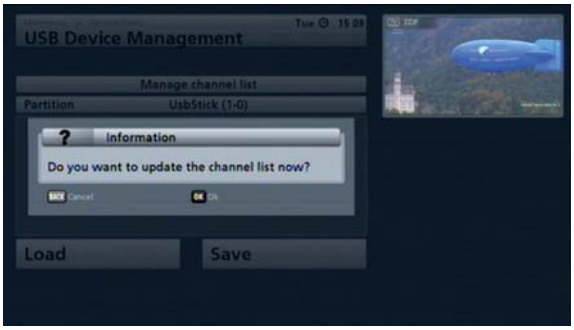
Confirm with the OK button. The checking is performed and any error are corrected by the receiver. On completion of the checking the receiver restarts and you can use the external USB storage medium for recording with the UFS 903.

Manage channel list

Use the ◄ ► buttons to select “Manage channel list”. Use the ▲ ▼ buttons to switch to the “USB data carrier” line. If several data carriers are connected to the receiver, you can use the ◄ ► buttons here to select the USB data carrier on which the channel list to be loaded is held, or the USB data carrier on to which the current channel list for your receiver should be stored/saved.

Load

Use the ✥ buttons to switch to the “Load” line. Press the OK button. The following display appears:

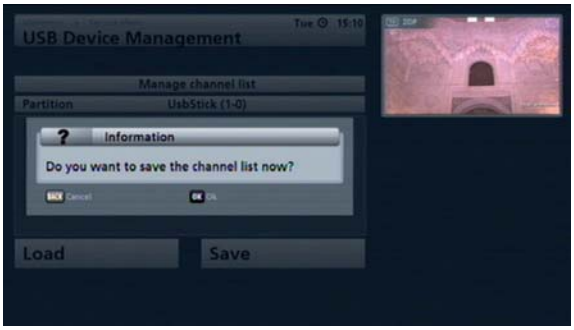


Loading the channel list may take a few minutes.

Confirm with the OK button. The channel list is being loaded. On completion the receiver automatically skips back to the “USB device management” menu.

Save

Use the ✥ buttons to switch to the “Save” line. Press the OK button. The following display appears:



The receiver here offers you the option of saving to a USB device the channel list you are currently using, so that you can recover it later if required. Instructions on how to reload the channel list can be found at the top of this page (item “Load”).

Confirm with the OK button. The channel list is being saved. On completion the receiver automatically skips back to the “USB device management” menu.

Main menu - Service menu

Activate sleep timer

You can use the ◄ ► buttons to activate the sleep timer.

Sleep Timer

You can use the “Sleep Time” function to set an inactive time period after which the receiver will automatically switch into “Stand-by” mode.

To do this, use the ◄ ► buttons to select “Yes”. Exit the menu using the MENU button. Now press the on/off button. The receiver now displays a window, in which you can use the ◄ ► buttons to select the desired inactive time period for the receiver. After this the receiver will run quite normally, then at the expiry of the inactive time period that was input, automatically switch into “Stand-by” mode.

If you do not start inputting the inactive time period within five seconds of the window appearing, the receiver will automatically revert to “Stand-by” mode.

Main menu - Language settings

After calling up the menu you will see the following display:

Use the ▲ ▼ buttons to select the desired menu language and confirm your selection using the OK button.

The following languages are available for selection: German, English, French, Italian, Spanish, Czech, Polish and Turkish.

Press the BACK button to return to the main menu.

Operation without the remote control

If you have misplaced your remote control, or if the batteries are flat, you can still operate your receiver from the front panel.

Backup operation

There are four buttons on the front of the receiver.

Power switch [1] (On/Off):
The power switch allows you to switch the receiver on (operation) and off again. You have no facility to switch the receiver into stand-by mode, since no stand-by switch is provided on the front or rear of the unit.

TV/R button:
You can change between the TV and the radio mode using the TV/R button. If the receiver is in stand-by mode, you can reactivate the receiver by pressing the TV/R button.

Channel down **-**:
The channel down button switches to the next channel down in the currently selected channel list.

Channel up **+**:
The channel up button switches to the next channel up in the currently selected channel list.

After the receiver has been switched off and on again, the last function to be selected is active.

Because there are no numbered buttons, no password/PIN-protected functions can be displayed.

[1] The unit is not completely disconnected from the power supply (see chapter „Safety Instructions - Important notes“, „Periods of extended absence, thunderstoms, mains socket accessibility“)

Operation without the remote control

Software updating via the USB port

A pre-requirement for the updating via a USB device is an empty USB device (such as a USB stick), formatted as FAT32, containing only the operating software or channel list to be loaded. It is essential that the operating software to be loaded is stored on the USB device under the following directory structure: Main folder: kathrein
Subfolder: ∟ ufs903

You can also download the updates from the Internet. The address is: http://www.kathrein.de
You will find the software at "Service" → "Software and Download" → "Receiver" → "UFS 903"

Performing the software update

1. Use the remote control to switch the receiver into standby mode
2. Switch on the receiver at the main switch at the front of the unit
3. Now connect your USB device (with the new operating software, in the required directory structure) to the receiver, using the USB port at the rear of the receiver
4. Keep the TV/R button pressed, and switch the receiver on again, using the main switch at the front of the unit

The following display appears: SOFTWARE UPDATE

Once the receiver has displayed this text you can let go the TV/R button. The receiver will then automatically perform the steps described below:

- USB SCAN
- FOUND DEVICE "%Stick name%"
- COPYING FILE TO RAM. THIS MAY TAKE A WHILE
- VERIFYING IMAGE
- UPDATE yyy%

The receiver now performs the update and starts in the last selected operating mode.

In conjunction with a restart, you can disconnect the USB device from the receiver again.

If the update fails or there are no files in the folder you will receive the following message:

READ ERROR. ABORTING!
STARTING EXISTING FIRMWARE

In this case check once again the file structure described for the USB stick and make sure that the update file is in the correct folder.

Troubleshooting

In the event of a malfunction, first check all the cable connections and operating states:

1. Receiver and TV set power plugs are connected to wall socket
2. Antenna cables are connected to the receiver input
3. Receiver and TV set are correctly connected to each other by a HDMI or Scart or cinch cable
4. Audio connections are made to the Hi-Fi or Dolby Digital system as appropriate
5. Receiver and TV set (Hi-Fi/Dolby Digital system) are switched on (check power indicators)
6. Receiver is responding to remote control

A selection of troubleshooting tips is offered below.

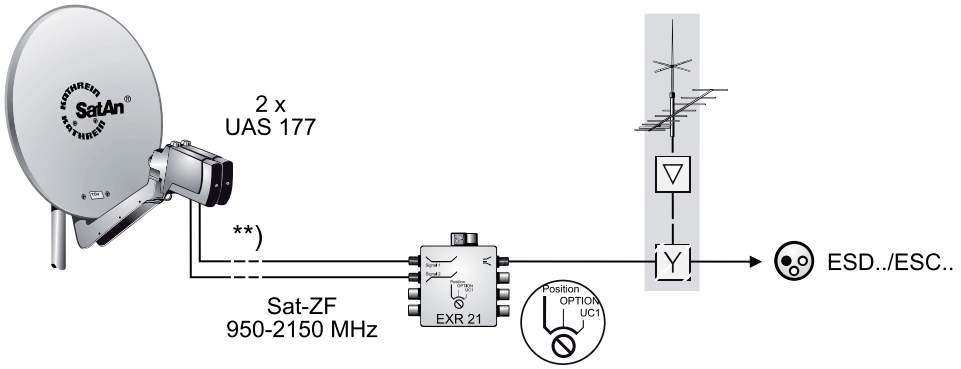
Problem	Cause	Remedy
A “No signal!” warning appears on some or all channels	Antenna signal of satellite reception system missing or faulty. Incorrect LNB frequencies set in “Antenna Configuration” menu.	Consult an antenna specialist to have it checked and repaired as necessary. Check the settings in the “Settings”, “Antenna configuration” menu, and change them if necessary.
Remote control no longer responding	Receiver or remote control command set may have been unintentionally changed	Set infrared code 1, as described in the operating manual under “General operating instructions”, “Remote control code”; check batteries
Wrong time being displayed	“Summer Time” setting wrong. An incorrect time was imported from the reception signal	On “Settings” - “Date and Time Setup” menu check “Summer Time Enabled” and change as necessary Use the power switch to switch the receiver off from the current channel, e.g. Das Erste or ZDF, wait 10 seconds and then switch it back on
The following channels cut out or “No or bad signal!” appears: DSF, Tele 5, HSE 24 and Sonnenklar TV	DECT telephones operate on the same frequency as these channels. Interference may occur due to inadequate level or poor shielding of cable	Consult your antenna specialist

Technical Specification

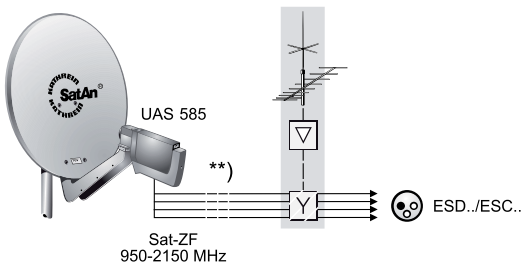
Type		UFS 903si	UFS 903sw
Order no./colour		20210149/silver	20210137/black
RF section			
Sat IF band	MHz	950-2150	
Input level band	dBµV	44-83	
TV system, video			
Modulation, FEC, demultiplexer		DVB-S/DVB-S2 standard	
Video resolution		CCIR 601 (720 x 576 lines), 576i, 576p, 720p, 1080i	
Video decryption		MPEG-2, MPEG-4-compatible	
Input data rate	MSymb/s	2-45, (30 for DVB-S2/8PSK)	
S/N	dB	> 53	
TV system, audio			
Decryption		AC 3, MPEG 1, Layers 1, 2 and 3	
Sampling rate	kHz	32/44,1/48	
S/N	dB	> 65	
Power Supply			
Power supply voltage	V/Hz	230/50-60	
Power consumption (max./standby)	W	< 27/0.4	
LNB supply (horiz./vert.)	V/mA	14/18; max. 400	
Control signal	kHz	22; DiSEqC™1.0/-1.1/-1.2/USALS, SCR single cable system	
Connections			
Sat IF input/output		2 x F sockets	
TV/VCR connection		1 x Scart sockets	
Video output (analogue)		1 x Cinch socket	
Video/audio output (digital)		1 x HDMI	
Audio output (analogue)		2 x Cinch socket	
Audio output (digital)		Standard fibre-optic cable (SPDIF)/ 1 x Cinch socket	
Data interface			
Common Interface		For 1 CA module	
USB		1 x 2.0	
RS 232		RJ 11	
General Information			
Ambient temperature	°C	Max. +5 to +40	
Unit dimensions (W x H x D)/weight	mm/kg	310 x 55 x 210/< 2	

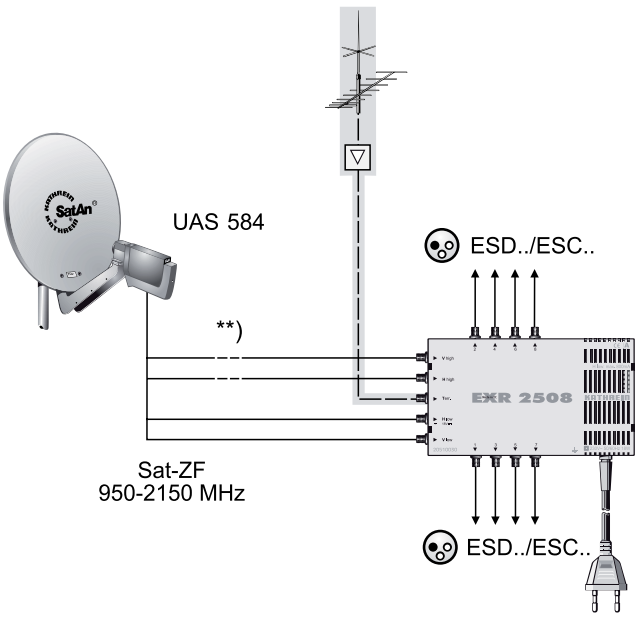
Sat IF connections

Stand-alone systems



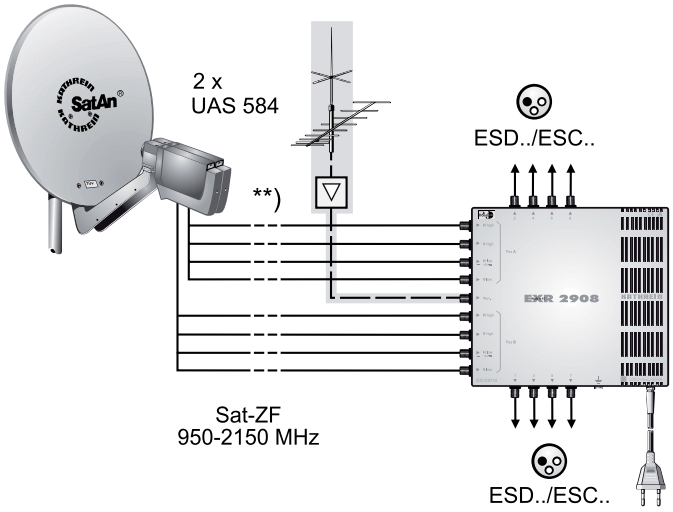
Party systems (4 x Sat-IF)



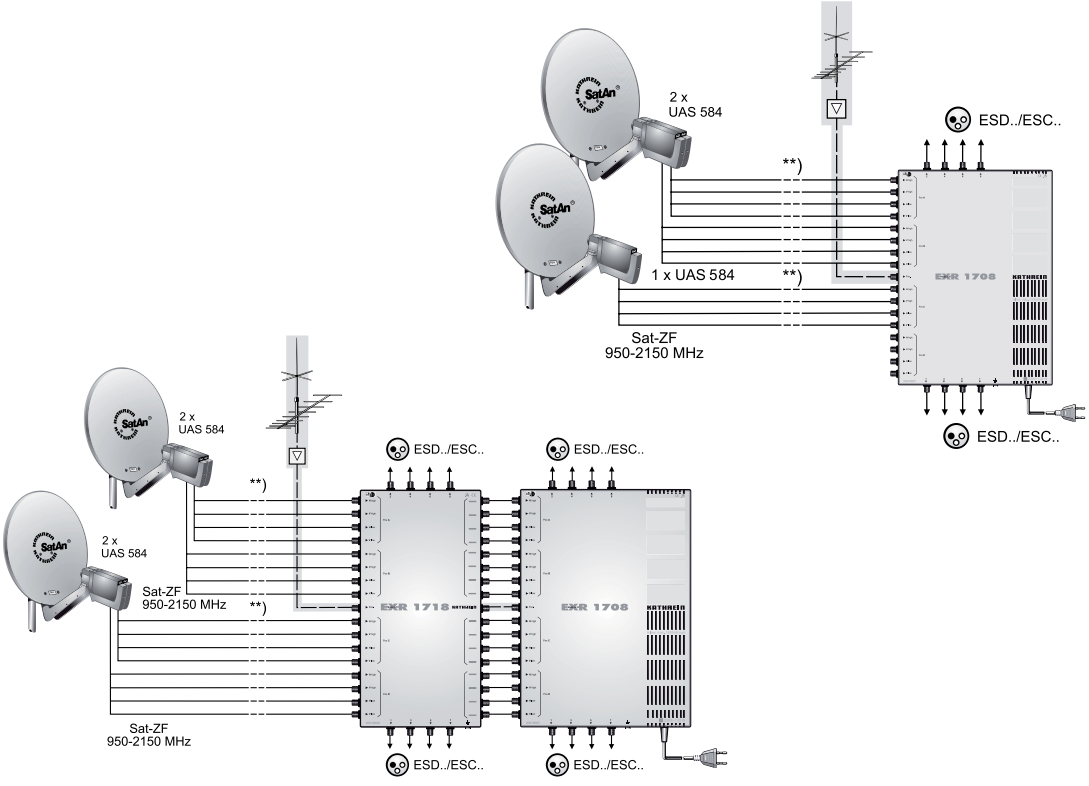


**) Overvoltage protection KAZ 11/KAZ 12

Party systems (8 x Sat-IF), multifeed

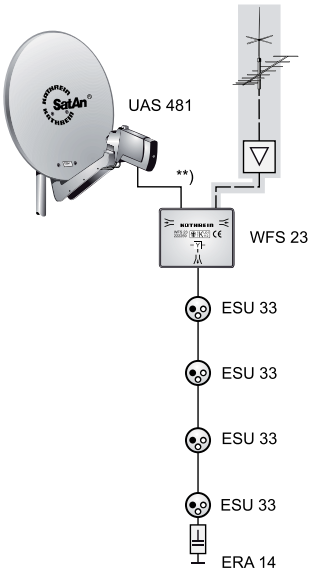


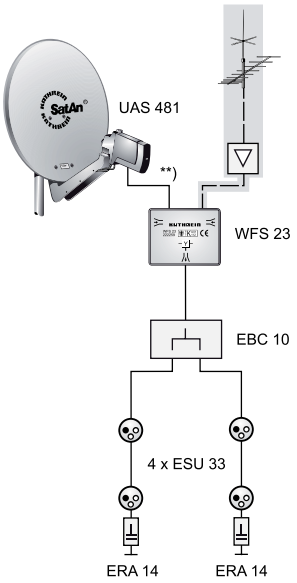
Party systems (16 x Sat-IF), multifeed

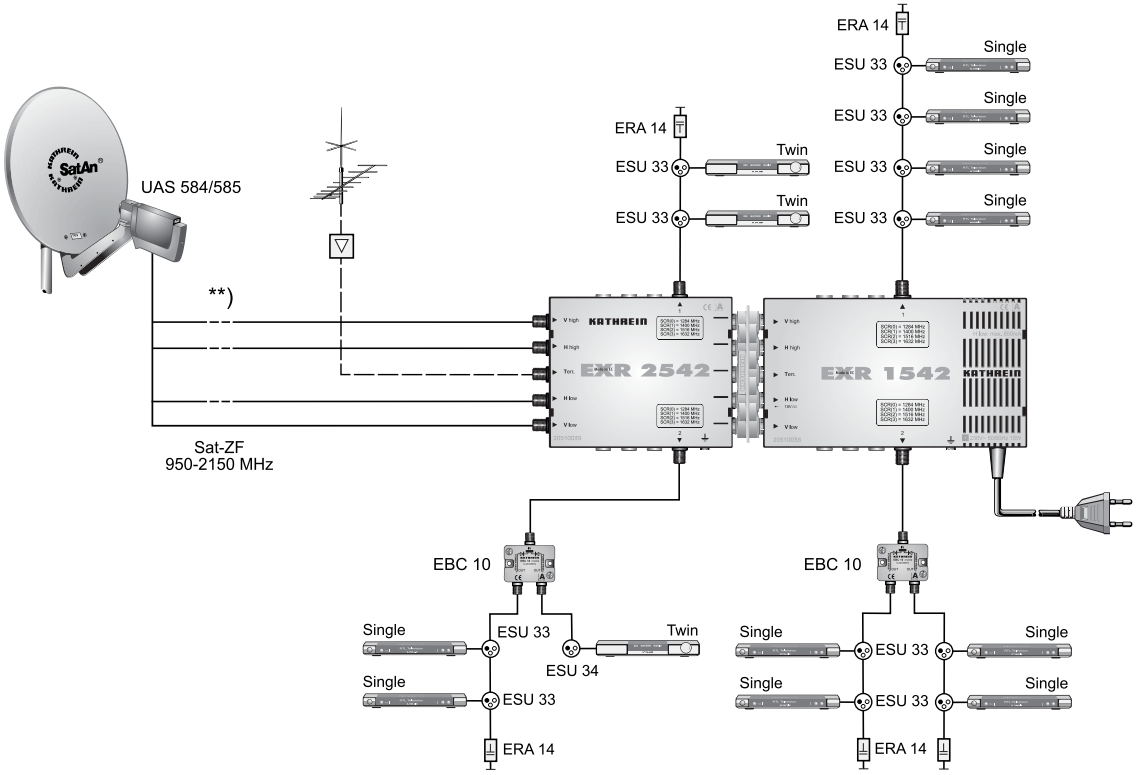


**) Overvoltage protection KAZ 11/KAZ 12

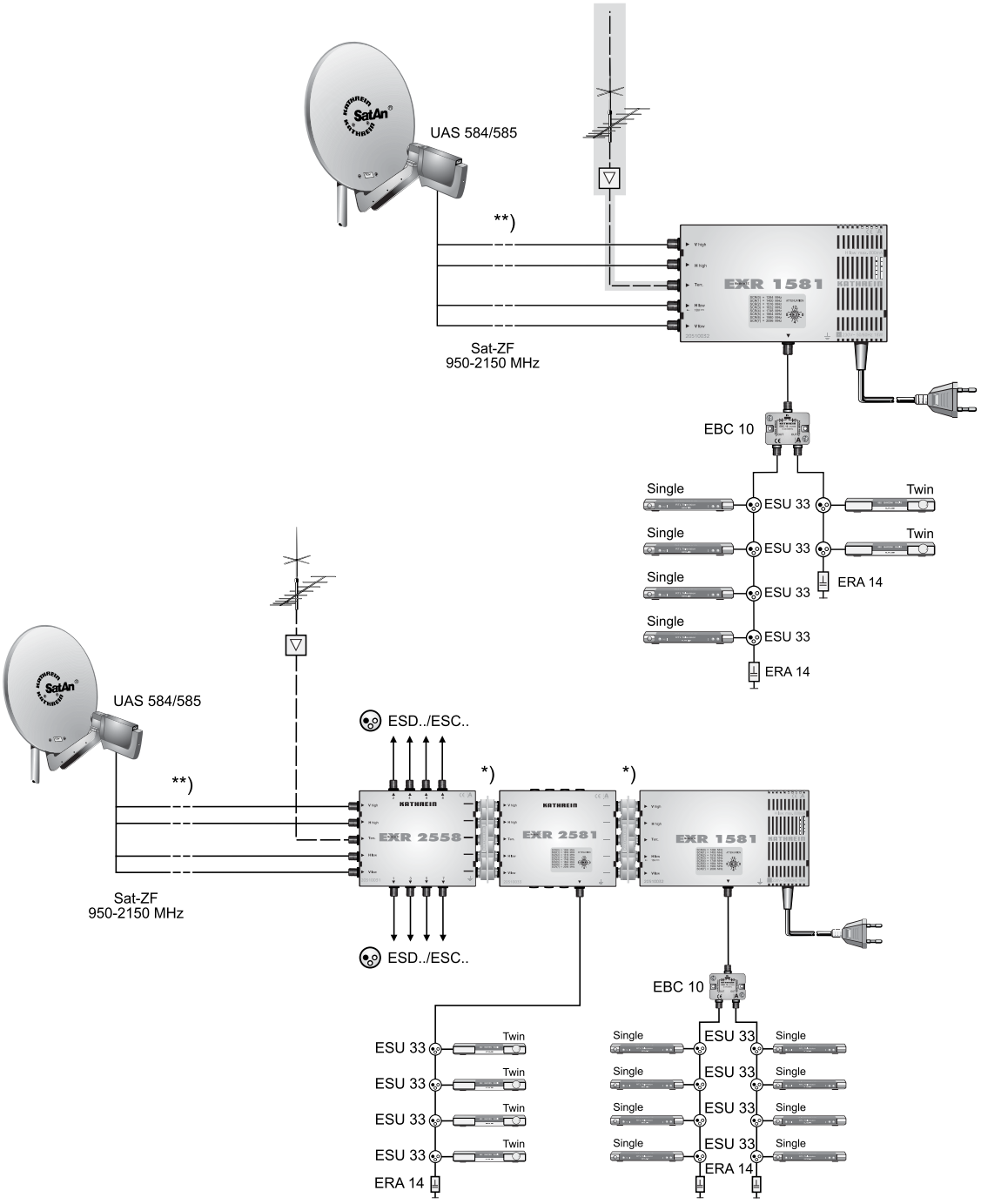
Single-cable systems







**) Overvoltage protection KAZ 11/KAZ 12



**) Overvoltage protection KAZ 11/KAZ 12

AC 3
Output for Dolby Digital signal

ASTRA
SES (Société Européene des Satellites) satellite system. Analogue and digital transponders in the frequency range 10.7-12.75 GHz.

AV programme pos.
Preferred programme slot on TV set for external connections such as Scart and HDMI

CAM – Conditional Access Module
Decryption decoder, which uses a smart card to decrypt the encrypted radio and TV signals.

Channel package
The channel package for a digital transponder normally includes several TV and radio channels. Each channel package has a fixed assignment for the transponder transmission frequency, for polarisation (horizontal or vertical), for the symbol rate and for the Viterbi rate or error rate.

CI - Common Interface
Internationally standardised interface for CA modules

Conditional Access (CA) system
Controls user access to services and programmes which are encrypted for reasons of copyright or for commercial reasons.

Data rate
Data bits transmitted per second. Is expressed in kbit/s or Mbit/s. The higher the data rate the better the quality of the transmitted signal.

Data reduction
Compression of video and audio signals. Redundant information is discarded.

DiSEqC™
DiSEqC™ (Digital Satellite Equipment Control) is a communication system between a satellite receiver (master) and the peripheral satellite components (slaves), such as LNBs, multi-switches, rotating antenna systems.
It is a single master/multi-slave system, i.e. there is only ever one master in the satellite system. All activities start from the master.

DiSEqC™ components
If DiSEqC™ switching matrices are cascaded, the master receiver must transmit the DiSEqC™ signal several times, so that all DiSEqC™ multi-switches in the cascade receive their commands.
These days, DiSEqC™ components (slaves) must be downward compatible, i.e. respond to the analogue switching criteria from receivers that are only equipped with H/V and 22 kHz control signals.
A DiSEqC™ switching matrix will work with analogue switching criteria until the DiSEqC™ command from the master is received. All analogue switching criteria are then ignored.

Dolby Digital 5.1
Dolby Digital is a sound transmission that allows digital surround sound to be output on a home cinema system.

DVB - Digital Video Broadcasting
DVB-S refers to the transmission method (S = satellite, C = cable, T = terrestrial).

DVB-S2
An enhanced DVB-S signal for HDTV with better quality.

Eb/No ratio
The Eb/No ratio is a measure of the signal to noise ratio of a digital signal. The value is not identical to the C/N value familiar from analogue reception technology. At Eb/No values below 5 dB no reception is normally possible.

EUTELSAT
European Satellite operator, based in Paris. Many orbit positions and European customers. Transponders in the frequency range 10.7-12.75 GHz.

FEC
FEC is the abbreviation for Forward Error Correction. A technique for reducing the error rate of data transmission. Additional bits are inserted into the data stream, so that error-correction algorithms can be used on reception. The FEC error rate corresponds to the Viterbi rate.

HD – Ready
This is a label created by the EICTA (European Information, Communications and Consumer Electronics Industry Technology Association) for equipment that is capable of reproducing HDTV.

HDCP – High-bandwidth Digital Content Protection
Encryption system which protects the HDMI and DVI interfaces for secure transmission of video and audio data. HDCP should be used in Europe for HDTV standard transmissions.

HDTV – High Definition Television
High resolution television with a resolution up to 5 times higher or finer than PAL or NTSC.

HDMI - High Definition Multimedia Interface
Digital interface for digital video and audio data transmission (preferred for HDTV).

High band
Satellite frequency range between 11.7 GHz and 12.75 GHz.

H.264
Another designation for MPEG-4/AVC.

LNB - Low Noise Block Converter
Converts the satellite downlink frequencies into the Sat-IF for the first satellite.

Low band
Satellite frequency range between 10.7 GHz and 11.7 GHz.

MPEG-2
MPEG is the abbreviation for Moving Picture Experts Group, a working group that formulates internationally applicable standards for the digital compression of video and audio. MPEG-2 has become established as the standard for compression of digital TV signals. MPEG-2 works up to a data rate of 100 Mbit/s.

MPEG-4
A further development of MPEG-2 with even higher data compression, intended for HDTV transmissions.

NID
The channel identification number is also referred to as the Network ID or NID.

OSD – On-Screen Display
Displays by the receiver on the TV screen (e.g. main menu)

PAL
Analogue TV standard

Pay TV
Television channels available on subscription (e.g. Sky). Encrypted transmitters which can only be decrypted by using the appropriate smart card. As a rule these services are subscription-only.

PCMCIA
Standard for internal decoder interface for pay-TV

PID
The PID (Packet IDentification) number is an identification number for video signals and audio signals in the digital data stream of DVB-MPEG-2 signals. The receiver uses the PID number to create a unique assignment for the video and audio data transmission. The PCR PID is the identification number for the synchronization signal. The PID-PCR is normally identical to the video PID. For programmes broadcast in multiple languages, the audio PD can be entered manually to assign a different language to the TV programme. After the PID is entered, the digital receiver automatically selects the audio data identified by the PID number from the data stream and assigns it to the video signal.

PIN
Personal Identification Number. For this unit the PIN is a 4-digit numeric code which must be entered to unlock the unit to allow access to certain functions and channels.

Channel Package
The channel package for a digital transponder normally includes several TV and radio channels. Each channel package has a fixed assignment for the transponder transmission frequency, for polarisation (horizontal and vertical), for the symbol rate and for the Viterbi rate or error rate.

QAM - Quadrature-Amplitude-Modulation
Digital modulation process with phase shift keying, which is used for transmissions in cable networks.

QPSK - Quadrature Phase Shift Keying
Digital modulation process that is used for satellite transmission (8PSK is also used in connection with HDTV).

Receivers
Satellite receiver

RGB
Video signal made up of three individual colour signals (red, green, blue)

SAT IF signal
Receiver input signal

Scart cable
21-pin connecting cable (e.g. receiver/TV)

Smart card
Card from Pay TV provider to decrypt its channels

Stand-by
Standby mode

Symbol Rate
The symbol rate describes the quantity of data that is transmitted per second. The symbol rate is measured in MSymbols/s and is equal to the number of symbols received per second.

Timer function
Clock function for pre-programmed switch on and off times

Timeshift function
Time shifted playback

Transponder
A transponder is a frequency converter which receives TV and radio signals broadcast from the earth, converts them and the rebroadcasts them to the earth at a different frequency. A satellite has several transponders.

Analogue transponders transmit only one TV channel and possibly multiple radio channels on a single transmission frequency.

Digital transponders simultaneously transmit several TV and several radio programmes on a transmission frequency. If a programme provider is broadcasting several TV channels via a digital transponder, we refer to the provider's channel package. The terms “digital transponder” and “channel package” have the same meaning.

UPnP
Stands for “Universal Plug and Play”. Further information is available from “www.upnp.org”.

VCR/PVR connection
Connection for an external recorder (such as a video or DVD recorder)

Video-Bit-Rate
The video bit rate describes the quantity of data from the digitised video signal that is transmitted per second.

Viterbi rate
The Viterbi rate (code rate, error rate) characterises the error protection used by the programme provider. The DVB standard provides the following values: 1/2 - 2/3 - 3/4 - 5/6 - 7/8

Service

If, despite studying this operating manual, you still have questions about getting started with the unit or using it correctly, or if unexpected problems occur, please contact your specialist dealer.

The UFS 903 device label is located on the bottom side of the unit.

The label features the following information:

- **type description (e.g. UFS 903sw)**
- **order no. and**
- **serial number of the unit.**

You do not require this information to operate the unit. However, in the event of a warrranty claim, you can find the necessary information on this label in case you no longer have the receiver packaging.

936.3637/B/1002/ZWT - Technical data subject to change.

KATHREIN

Antennen · Electronic

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